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☞ --New or revised definition

OCSP TEST SURVEY JOB LIST

PROFESSIONAL AND ADMINISTRATIVE OCCUPATIONS

Accountant
- I--------------------------1401
- II --------------------------1402
- III --------------------------1403
- IV --------------------------1404
- V --------------------------1405
- VI --------------------------1406
- NCBL ----------------------1409

Chief accountant
- I --------------------------1421
- II --------------------------1422
- III --------------------------1423
- IV --------------------------1424
- V --------------------------1425
- NCBL ----------------------1429

☞ Budget analyst
- I --------------------------1451
- II --------------------------1452
- III --------------------------1453
- IV --------------------------1454
- NCBL ----------------------1459

☞ Budget analyst supervisor
- I --------------------------1461
- II --------------------------1462
- NCBL ----------------------1469

Public accountant
- I --------------------------1431
- II --------------------------1432
- III --------------------------1433
- IV --------------------------1434
- NCBL ----------------------1439

☞ Tax collector
- I --------------------------1481
- II --------------------------1482
- III --------------------------1483
- NCBL ----------------------1489

☞ --New or revised definition

PROFESSIONAL AND ADMINISTRATIVE OCCUPATIONS - Continued

Personnel specialist

I	1511
II	1512
III	1513
IV	1514
V	1515
VI	1516
NCBL	1519

Personnel supervisor/manager

I	1531
II	1532
III	1533
IV	1534
V	1535
NCBL	1539

Director of personnel

I	1521
II	1522
III	1523
IV	1524
V	1525
NCBL	1529

Attorney

I	1601
II	1602
III	1603
IV	1604
V	1605
VI	1606
NCBL	1609

☞ Buyer/contracting specialist

I	1811
II	1812
III	1813
IV	1814
V	1815
NCBL	1819

Computer programmer

I	2901
II	2902
III	2903
IV	2904
V	2905
NCBL	2909

☞ --New or revised definition

PROFESSIONAL AND ADMINISTRATIVE OCCUPATIONS - Continued

Computer systems analyst

I	2911
II	2912
III	2913
IV	2914
V	2915
NCBL	2919

Computer systems analyst supervisor/manager

I	2921
II	2922
III	2923
IV	2924
NCBL	2929

Chemist

I	1701
II	1702
III	1703
IV	1704
V	1705
VI	1706
VII	1707
VIII	1708
NCBL	1709

Engineer

I	1711
II	1712
III	1713
IV	1714
V	1715
VI	1716
VII	1717
VIII	1718
NCBL	1719

☞ Physical/biological scientists

I	1721
II	1722
III	1723
IV	1724
V	1725
VI	1726
VII	1727
VIII	1728
NCBL	1729

☞ --New or revised definition

PROFESSIONAL AND ADMINISTRATIVE OCCUPATIONS - Continued

☞ Computer/engineering scientists

I	1731
II	1732
III	1733
IV	1734
V	1735
VI	1736
VII	1737
VIII	1738
NCBL	1739

☞ Scientists (not classifiable by catagory)

I	1791
II	1792
III	1793
IV	1794
V	1795
VI	1796
VII	1797
VIII	1798
NCBL	1799

Registered nurse

I	2051
II	2052
II specialist	2030
III	2053
III anesthetist	3413
IV	2054
NCBL	2059

Pharmacist

I	7411
II	7412
NCBL	7419

Physical therapist

I	6311
II	6312
NCBL	6319

Medical technologist

I	4511
II	4512
NCBL	4519

☞ --New or revised definition

TECHNICAL SUPPORT OCCUPATIONS

Licensed practical nurse

I	2061
II	2062
III	2063
NCBL	2069

Nursing assistant

I	2071
II	2072
III	2073
IV	2074
NCBL	2079

Respiratory therapist

I	6421
II	6422
NCBL	6429

Pharmacy technician

I	7511
II	7512
NCBL	7519

Radiology technician

I	4911
II	4912
NCBL	4919

Medical machine operating technician

I	2091
II	2092
III	2093
IV	2094
NCBL	2099

☞ Civil engineering technician

I	2081
II	2082
III	2083
IV	2084
V	2085
VI	2086
NCBL	2089

☞ --New or revised definition

TECHNICAL SUPPORT OCCUPATIONS - Continued

☞	Electronics technician	
	I	2181
	II	2182
	III	2183
	NCBL	2189
☞	Engineering technician	
	I	1801
	II	1802
	III	1803
	IV	1804
	V	1805
	VI	1806
	NCBL	1809
	Drafter	
	I	2021
	II	2022
	III	2023
	IV	2024
	V	2025
	NCBL	2029
	Computer operator	
	I	2851
	II	2852
	III	2853
	IV	2854
	V	2855
	VI	2856
	NCBL	2859

PROTECTIVE SERVICE OCCUPATIONS

☞	Correctional officer	5100
☞	Firefighter	5200
☞	Firefighter crew leader	5210
☞	Police officer	
	I	5301
	II	5302
	NCBL	5309
☞	Police officer supervisor (sergeant)	5310

☞ --New or revised definition

PROTECTIVE SERVICE OCCUPATIONS - Continued

☞	Guard	
	I	5401
	II	5402
	NCBL	5409

CLERICAL OCCUPATIONS

	Secretary	
	I	1141
	II	1142
	III	1143
	IV	1144
	V	1145
	NCBL	1149
	Typist	
	I	1221
	II	1222
	NCBL	1229
	Word processor	
	I	1231
	II	1232
	III	1233
	NCBL	1239
☞	Word processor supervisor	
	I	1241
	II	1242
	NCBL	1249
	Key entry operator	
	I	1121
	II	1122
	NCBL	1129
	Accounting clerk	
	I	1061
	II	1062
	III	1063
	IV	1064
	NCBL	1069
	Payroll clerk	1100
	File clerk	
	I	1071
	II	1072
	III	1073
	NCBL	1079

☞ --New or revised definition

CLERICAL OCCUPATIONS - Continued

Messenger ------------------------1130

Order clerk
- I ---------------------------1091
- II --------------------------1092
- NCBL ----------------------1099

Receptionist -------------------------1160

Switchboard operator -------------------1170

Switchboard operator-receptionist -----------1180

Personnel clerk/assistant (employment)
- I ----------------------------1311
- II ---------------------------1312
- III --------------------------1313
- IV --------------------------1314
- V ---------------------------1315
- NCBL ----------------------1319

Purchasing clerk/assistant
- I ----------------------------1321
- II ---------------------------1322
- III --------------------------1323
- IV --------------------------1324
- NCBL ----------------------1329

General clerk
- I ----------------------------1331
- II ---------------------------1332
- III --------------------------1333
- IV --------------------------1334
- NCBL ----------------------1339

MAINTENANCE, TOOLROOM, AND POWERPLANT OCCUPATIONS

Maintenance carpenter -------------------3010

Maintenance electrician ------------------3020

Maintenance painter ---------------------3130

Maintenance machinist -------------------3070

Maintenance mechanic (machinery) ----------3100

Maintenance pipefitter -------------------3140

Millwright --------------------------3110

MAINTENANCE, TOOLROOM, AND POWERPLANT OCCUPATIONS - Continued

Motor vehicle mechanic ------------------3090

General maintenance worker ---------------3180

Maintenance trades helper -----------------3050

Machine-tool operator (toolroom) ------------3060

Tool and die maker ---------------------3170

Stationary engineer ---------------------3030

MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS

Truckdriver
    Light truck ---------------------4081
    Medium truck -------------------4082
    Heavy truck --------------------4083
    Tractor trailer -------------------4084
    NCBC -----------------------4089

Shipper ----------------------------4160

Receiver ---------------------------4260

Shipper and receiver ---------------------4360

Warehouseman ------------------------4110

Order filler--------------------------4040

Shipping packer -----------------------4050

Material handling laborer -----------------4070

Forklift operator -----------------------4090

Power-truck operator (other than forklift) -------4190

Janitor, porter, or cleaner -----------------4030

PROFESSIONAL AND ADMINISTRATIVE OCCUPATIONS

ACCOUNTANT

Performs professional operating or cost accounting work requiring knowledge of the theory and practice of recording, classifying, examining, and analyzing the data and records of financial transactions. The work generally requires a bachelor's degree in accounting or, in rare instances, equivalent experience and education combined. Positions covered by this definition are characterized by the inclusion of work that is analytical, creative, evaluative, and advisory in nature. The work draws upon and requires a thorough knowledge of the fundamental doctrines, theories, principles, and terminology of accountancy, and often entails some understanding of such related fields as business law, statistics, and general management. (See also chief accountant.)

Professional responsibilities in accountant positions above levels I and II include several such duties as:

> analyzing the effects of transactions upon account relationships;
>
> evaluating alternative means of treating transactions;
>
> planning the manner in which account structures should be developed or modified;
>
> assuring the adequacy of the accounting system as the basis for reporting to management;
>
> considering the need for new or changed controls;
>
> projecting accounting data to show the effects of proposed plans on capital investments, income, cash position, and overall financial condition;
>
> interpreting the meaning of accounting records, reports, and statements;
>
> advising operating officials on accounting matters; and
>
> recommending improvements, adaptations, or revisions in the accounting system and procedures.

Accountant I and II positions provide opportunity to develop ability to perform professional duties such as those enumerated above.

In addition to such professional work, most accountants are also responsible for assuring the proper recording and documentation of transactions in the accounts. They, therefore, frequently direct nonprofessional personnel in the actual day-to-day maintenance of books of accounts, the accumulation of cost or other comparable data, the preparation of standard reports and statements, and similar work. (Positions involving such supervisory work but not including professional duties as described above are not included in this description.)

Excluded are accountants whose principal or sole duties consist of designing or improving accounting systems or other nonoperating staff work, e.g., budget analysis, financial analysis, financial forecasting, tax advising, etc. (The criteria that follow for distinguishing among the several levels of work are inappropriate for such jobs.) Note, however, that professional accountant positions with responsibility for recording or reporting accounting data relative to taxes are included, as are other operating or cost accountants whose work includes, but is not limited to, improvement of the accounting system.

Some accountants use electronic data processing equipment to process, record, and report accounting data. In some such cases the machine unit is a subordinate segment of the accounting system; in others it is a separate entity or is attached to some other organization. In either instance, provided that the primary responsibility of the position is professional accounting work of the type otherwise included, the use of data processing equipment of any type does not of itself exclude a position from the accountant description nor does it change its level.

Accountant I 1401

General characteristics. At this beginning professional level, the accountant learns to apply the principles, theories, and concepts of accounting to a specific system. The position is distinguishable from nonprofessional positions by the variety of assignments; rate and scope of development expected; and the existence, implicit or explicit, of a planned training program designed to give the entering accountant practical experience. (Terminal positions are excluded.)

Direction received. Works under close supervision of an experienced accountant whose guidance is directed primarily to the development of the trainee's professional ability and to the evaluation of advancement potential. Limits of assignments are clearly defined, methods of procedure are specified, and kinds of items to be noted and referred to supervisor are identified.

Typical duties and responsibilities. Performs a variety of accounting tasks such as: examining a variety of financial statements for completeness, internal accuracy, and conformance with uniform accounting classifications or other specific accounting requirements; reconciling reports and financial data with financial statements already on file, and pointing out apparent inconsistencies or errors; carrying out assigned steps in an accounting analysis, such as computing standard ratios; assembling and summarizing accounting literature on a given subject; preparing relatively simple financial statements not involving problems of analysis or presentation; and preparing charts, tables, and other exhibits to be used in reports. In addition, may also perform some nonprofessional tasks for training purposes.

Responsibility for the direction of others. Usually none.

Accountant II 1402

General characteristics. At this level, the accountant makes practical application of technical accounting practices and concepts beyond the mere application of detailed rules and instructions. Initial assignments are designed to expand practical experience and to develop professional judgment in the application of basic accounting techniques to simple problems. Is expected to be competent in the application of standard procedures and requirements to routine transactions, to raise questions about unusual or questionable items, and to suggest solutions.

Direction received. Work is reviewed to verify general accuracy and coverage of unusual problems, and to insure conformance with required procedures and special instructions.

Typical duties and responsibilities. Performs a variety of accounting tasks, e.g., prepares routine working papers, schedules, exhibits, and summaries indicating the extent of the examination and presenting and supporting findings and recommendations. Examines a variety of accounting documents to verify accuracy of computations and to ascertain that all transactions are properly supported, are in accordance with pertinent policies and procedures, and are classified and recorded according to acceptable accounting standards.

Responsibility for the direction of others. Usually none, although sometimes responsible for supervision of a few clerks.

Accountant III 1403

General characteristics. The accountant at this level applies well established accounting principles, theories, concepts, and practices to moderately difficult problems. Receives detailed instructions concerning the overall accounting system and its objectives, the policies and procedures under which it is operated, and the nature of changes in the system or its operation. Characteristically, the accounting system or assigned segment is stable and well established (i.e., the basic chart of accounts, classifications, the nature of the cost accounting system, the report requirements, and the procedures are changed infrequently).

Depending upon the work load involved, the accountant may have such assignments as supervision of the day-to-day operation of: (a) the entire system of a relatively small organization; (b) a major segment (e.g., general accounting, cost accounting, financial statements and reports) of a somewhat larger system; or (c) in a complex system, may be assigned to a relatively narrow and specialized segment dealing with some problem, function, or portion of work which is appropriate for this level.

Direction received. A higher level professional accountant normally is available to furnish advice and assistance as needed. Work is reviewed for technical accuracy, adequacy of professional judgment, and compliance with instructions through spot checks, appraisal of results, subsequent processing, analysis of reports and statements, and other appropriate means.

Typical duties and responsibilities. The primary responsibility of most positions at this level is to assure that the assigned day-to-day operations are carried out in accordance with established accounting principles, policies, and objectives. The accountant performs such professional work as: developing nonstandard reports and statements (e.g., those containing cash forecasts reflecting the interrelations of accounting, cost budgeting, or comparable information); interpreting and pointing out trends or deviations from standards; projecting data into the future; predicting the effects of changes in operating programs; or identifying management informational needs, and refining account structures or reports accordingly.

Within the limits of delegated responsibility, makes day-to-day decisions concerning the accounting treatment of financial transactions. In expected to recommend solutions to moderately difficult problems and propose changes in the accounting system for approval at higher levels. Such recommendations are derived from personal knowledge of the application of well-established principles and practices.

Responsibility for the direction of others. In most instances is responsible for supervision of a subordinate nonprofessional staff; may coordinate the work of lower level professional accountants.

Accountant IV 1404

General characteristics. At this level the accountant applies well-established accounting principles, theories, concepts, and practices to a wide variety of difficult problems. Receives instructions concerning the objectives and operation of the overall accounting system. Compared with level III, the accounting system or assigned segment is more complex, i.e., (a) is relatively unstable, (b) must adjust to new or changing operational environments, (c) is substantially larger or (d) is complicated by the need to provide and coordinate separate or specialized accounting treatment and reporting (e.g., cost accounting using standard cost, process cost, and job order techniques) for different internal operations or divisions.

Depending upon the work load and degree of coordination involved, the accountant IV may have such assignments as the supervision of the day-to-day operation of: (a) an entire accounting system which has a few relatively stable accounting segments; (b) a major segment (e.g., general accounting, cost accounting, or financial statements and reports) of an accounting system serving a larger and more complex organization; or (c) in a complex system, may be assigned to a relatively narrow and specialized segment dealing with some problem, function, or portion of work which is of the level of difficulty characteristic of this level.

Direction received. A higher level accountant normally is available to furnish advice and assistance as needed. Work is reviewed by spot checks and appraisal of results for adequacy of professional judgment, compliance with instructions, and overall accuracy and quality.

Typical duties and responsibilities. As at level III, a primary characteristic of most positions at this level is the responsibility of operating an accounting system or major segment of a system in the intended manner.

The accountant IV exercises professional judgment in making frequent, appropriate recommendations for: new accounts; revisions in the account structure; new types of ledgers; revisions in the reporting system or subsidiary records; changes in instructions regarding the use of accounts, new or refined account classifications or definitions; etc. Also makes day-to-day decisions concerning the accounting treatment of financial transactions and is expected to recommend solutions to complex problems beyond incumbent's scope of responsibility.

Responsibility for the direction of others. Accounting staff supervised, if any, may include professional accountants.

Accountant V 1405

General characteristics. The accountant V applies accounting principles, theories, concepts, and practices to the solution of problems for which no clear precedent exists or performs work which is of greater than average responsibility due to the nature or magnitude of the assigned work. Responsibilities at this level, in contrast to accountants at level IV, extend beyond accounting system maintenance to the solution of more complex technical and managerial problems. Work of accountants V is more directly concerned with what the accounting system (or segment) should be, what operating policies and procedures should be established or revised, and what is the managerial as well as the accounting meaning of the data included in the reports and statements for which they are responsible. Typically this level of work approaches chief accountant positions in terms of the nature of the concern for the accounting system and its operations, but not in terms of the breadth or scope of responsibility.

Examples of assignments characteristic of this level are supervision of the day-to-day operation of: (a) an entire accounting system which has a few relatively complex accounting segments; (b) a major segment of a larger and more complex accounting system; (c) an entire accounting system (or major segment) that is relatively stable and conventional when the work includes significant responsibility for accounting system design and development; or (d) in a complex system, may be assigned to a relatively narrow and specialized segment dealing with some problem, function, or portion of work which is itself of the level of difficulty characteristic of this level.

Direction received. An accountant of higher level normally is available to furnish advice and assistance as needed. Work is reviewed for adequacy of professional judgment, compliance with instructions, and overall quality.

Typical duties and responsibilities. The accountant V performs such professional work as: participating in the development and coordinating the implementation of new or revised accounting systems, and initiating necessary instructions and procedures; assuring that accounting reporting systems and procedures are in compliance with established administrative policies, regulations, and acceptable accounting practices; providing technical advice and services to operating managers, interpreting accounting reports and statements, and identifying problem areas; and evaluating complete assignments for conformance with applicable policies, regulations, and tax laws.

Responsibility for the direction of others. Accounting staff supervised generally includes professional accountants.

Accountant VI 1406

General characteristics. At this level, the accountant applies accounting principles, theories, concepts, and practices to specialized, unique, or nonrecurring complex problems (e.g., implementation of specialized automated accounting systems). The work is substantially more difficult and of greater responsibility than level V because of the unusual nature, magnitude, importance, or overall impact of the work on the accounting program.

At this level the accounting system or segment is usually complex, i.e., (a) is generally unstable, (b) must adjust to the frequent changing needs of the organization, or (c) is complicated by the need to provide specialized or individualized reports.

Examples of assignments at this level are the supervision of the day-to-day operation of: (a) a large and complex accounting system; or (b) a major segment (e.g., general accounting, property accounting, etc.) of an unusually complex accounting system requiring technical expertise in a particular accounting field (e.g., cost accounting, tax accounting, etc.).

Direction received. A higher level professional accountant is normally available to furnish advice as needed. Work is reviewed for adequacy of professional judgment, compliance with instructions and policies, and overall quality.

Typical duties and responsibilities. Accountants at this level are delegated complete responsibility from higher authority to establish and implement new or revised accounting policies and procedures. Typically, accountants VI participate in decision-making sessions with operating managers who have policy-making authority for their subordinate organizations or establishments; recommend management actions or alternatives which can be taken when accounting data disclose unfavorable trends, situations, or deviations; and assist management officials in applying financial data and information to the solution of administrative and operating problems.

Responsibility for the direction of others. Accounting staff supervised generally includes professional accountants.

NOTE: Excluded are accountants above level VI whose principal function is to direct, manage, or administer an accounting program in that they are primarily concerned with the administrative, budgetary, and policy matters of the program rather than the actual supervision of the day-to-day operations of an accounting program. This type of work requires extensive managerial ability as well as superior professional competence in order to cope with the technical accounting and management problems encountered. Typically this level of work involves responsibility for more than one accounting activity (e.g., cost accounting, sales accounting, etc.).

Not classifiable by level 1409

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

CHIEF ACCOUNTANT

As the top technical expert in accounting, is responsible for the overall direction of an entire accounting program. The minimum accounting program includes: (1) general accounting (assets, liabilities, income, expense, and capital accounts, usually including responsibility for profit and loss and/or balance sheet statements); and (2) at least one other major accounting activity, typically tax accounting, cost accounting, property accounting, or sales accounting. It may also include such other activities as payroll and timekeeping, and mechanical or electronic data processing operations which are an adjunct of the accounting system. (Responsibility for an internal audit program is typically not included.)

The responsibilities of the chief accountant include all of the following:

1. on own responsibility, developing, adapting or revising an accounting system to meet the needs of the organization;

2. supervising, either directly or through subordinate supervisors, the operation of the system with full management responsibility for the quality and quantity of work performed, training and development of subordinates, work scheduling and review, coordination with other parts of the organization served, etc.; and

3. providing directly, or through an official such as a comptroller, advisory services to the top management officials of the organization served as to:

   a. the status of financial resources and the financial trends or results of operations as revealed by accounting data, and selecting a manner of presentation that is meaningful to management; and

   b. methods of improving operations as suggested by an expert knowledge of accounting, e.g., proposals for improving cost control, property management, credit and collection, tax reduction, or similar programs.

Excluded are positions with responsibility for the accounting program if they also include (as a major part of the job) responsibility for budgeting; work measurement; organization, methods, and procedures studies; or similar nonaccounting functions. (Positions of such breadth are sometimes titled comptroller, budget and accounting manager, financial manager, etc.)

Some positions responsible for supervising general accounting and one or more other major accounting activities but which do not fully meet all of the responsibilities of a chief accountant specified above may be covered by the descriptions for accountant.

Chief accountant jobs which meet the characteristics described are classified by level of work according to (a) authority and responsibility, and (b) technical complexity, using the table which follows the definitions below.

Authority and Responsibility

AR-1

The accounting system (i.e., accounts, procedures, and reports to be used) has been prescribed in considerable detail by higher levels in the organization. The chief accountant has final, unreviewed authority within the prescribed system, to expand it to fit the particular needs of the organization served, e.g., in the following or comparable ways:

providing greater detail in accounts and reports or financial statements;

establishing additional accounting controls, accounts, subaccounts, and subsidiary records; and

providing special or interim reports and statements needed by the manager responsible for the day-to-day operations of the organization served.

This degree of authority is typically found at a subordinate establishment (e.g., plant, regional office, etc.)

AR-2

The basic accounting system is prescribed in broad outline rather than in specific detail. While certain major financial reports, overall accounts, and general policies are required by the basic system, the chief accountant has broad latitude and authority to decide the specific methods, procedures, accounts, reports, etc., to be used within the organizational segment served. Approval must be secured from higher levels only for those changes which would basically affect the broad requirements prescribed by such higher levels. Typical responsibilities include:

> evaluating and taking final action on recommendations proposed by subordinate establishments for changes in aspects of the accounting system or activities not prescribed by higher authority;
>
> extending cost accounting operations to areas not previously covered;
>
> instituting new cost accounting procedures;
>
> expanding the utilization of computers within the accounting process; and
>
> preparing accounting reports and statements reflecting the events and progress of the entire organization for which incumbent is responsible, often consolidating data submitted by subordinate segments.

This degree of authority is most typically found at intermediate organizational levels such as a division, subsidiary, State, or agency headquarters. It is also found in some headquarters situations where the authority of the chief accountant is less extensive than is described in AR-3.

AR-3

Has complete responsibility for establishing and maintaining the framework for the basic accounting system used in the overall organization (e.g., company, State government) subject only to general policy guidance and control from a higher level official responsible for general financial management. Typical responsibilities include:

> determining the basic characteristics of the accounting system and the specific accounts to be used;
>
> devising and preparing accounting reports and statements required to meet management's needs for data;
>
> establishing basic accounting policies, interpretations, and procedures;
>
> reviewing and taking action on proposed revisions to the company's accounting system suggested by subordinate units; and
>
> taking final action on all technical accounting matters.

Characteristically, participates extensively in broad management processes by providing accounting advice, interpretations, or recommendations based on data accumulated in the accounting system and on professional judgment and experience.

Technical Complexity

TC-1

The organization which the accounting program serves has relatively few functions, products, work processes, etc., and these tend to be stable and unchanging. The accounting system operates in accordance with well-established principles and practices or those of equivalent difficulty which are typical of that industry.

TC-2

The organization which the accounting program serves has a relatively large number of functions, products, work processes, etc., which require substantial and frequent adaptations of the basic system to meet management needs (e.g., adoption of new accounts, subaccounts, and subsidiary records; revision of instructions for the use of accounts; improvement or expansion of methods for accumulating and reporting cost data in connection with new or changed work processes).

TC-3

The organization which the accounting program serves puts a heavy demand on the accounting organization for specialized and extensive adaptation of the basic system to meet management needs. Such demands arise because the functions, products, work processes, etc., of the organization are very numerous, diverse, unique, or specialized, or there are other comparable complexities. Consequently, the accounting system, to a considerable degree, is developed well beyond established principles and accounting practices in order to:

> provide for the solution of problems for which no clear precedents exist; or
>
> provide for the development or extension of accounting theories and practices to deal with problems to which these theories and practices have not previously been applied.

Subordinate Staff

In the table that follows, the number of professional accountants supervised is recognized to be a relatively crude criterion for distinguishing between various levels. It is to be considered less important in the matching process than the other criteria. In addition to the staff of professional accountants in the system for which the chief accountant is responsible, there are clerical, machine operation, bookkeeping, and related personnel.

CRITERIA FOR MATCHING CHIEF ACCOUNTANTS BY LEVEL

Level	Authority and Responsibility 1/	Technical Complexity 1/	Subordinate Professional Accounting Staff
I (1421)	AR-1	TC-1	Only one or two professional accountants, who do not exceed the accountant III job definition.
II (1422)	AR-1	TC-2	About 5 to 10 professional accountants, with at least one or two matching the accountant IV job definition.
or			
	AR-2	TC-1	About 5 to 10 professional accountants. Most of these match the accountant III job definition, but one or two may match the accountant IV job definition.
or			
	AR-3	TC-1	Only one or two professional accountants, who do not exceed the accountant IV job definition.
III (1423)	AR-1	TC-3	About 15 to 20 professional accountants. At least one or two match the accountant V job definition.
or			
	AR-2	TC-2	About 15 to 20 professional accountants. Many of these match the accountant IV job definition, but some may match the accountant V job definition.
or			
	AR-3	TC-1	About 5 to 10 professional accountants. Most of these match the accountant III job definition, but one or two may match as high as accountant V.

CRITERIA FOR MATCHING CHIEF ACCOUNTANTS BY LEVEL

IV (1424)	AR-2	TC-3	About 25 to 40 professional accountants. Many of these match the accountant V job definition, but several may exceed that level.
or	AR-3	TC-2	About 15 to 20 professional accountants. Most of these match the accountant IV job definition, but several may match the accountant V and one or two may exceed that level.
V (1425)	AR-3	TC-3	About 25 to 40 professional accountants. Many of these match the accountant V job definition, but several may exceed that level.

1/ AR-1, -2, and -3 and TC-1, -2, and -3 are explained on the preceding pages.

Not classifiable by level 1429

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

☞ BUDGET ANALYST

Formulates and analyzes and/or administers and monitors an organization's budget. Typical duties include: Preparing budget estimates to support programs; presenting and justifying budget estimates; administering approved budgets and determining funding requirements within authorized limits; evaluating and administering requests for funds and monitoring and controlling obligations and expenditures; and developing and interpreting budget policies.

In addition to the technical responsibilities described in levels I through IV, budget analysts may also supervise subordinate staff members. At levels I and II, the subordinate staff typically consists of clerks and paraprofessionals; level III may also coordinate the work of lower level analysts; and level IV may supervise one or two analysts. Positions responsible for supervising three or more budget analysts and support staff should typically be matched to the budget analyst supervisor definition.

Excluded are:

a. Budget clerks and assistants performing clerical work in support of budget analysts;

b. Program analysts evaluating the success of an organization's operating programs;

c. Financial analysts evaluating the financial operations, transactions, practices and structure of an organization; and

d. Budget analysts (above level IV) providing analytical support for highly complex budgets requiring frequent reprogramming and evaluating the impact of complicated legislation or policy decisions on the organization's budget.

Budget Analyst I 1451

As a trainee, performs a variety of clearly-defined tasks assigned to increase the employee's knowledge and understanding of budget concepts, principles, practices, and procedures. Assists in the development of budgets by comparing projected costs to prior year expenditures, verifying totals and subtotals, preparing budget forms and schedules; or assists in budget administration by examining and highlighting obvious deviations in reports listing the status of financial obligations and expenditures. (Terminal positions are excluded.)

Work is performed under close supervision. Assignments are clearly defined, methods are specified, and items to be noted and referred to supervisor are identified.

Budget Analyst II 1452

Performs routine and recurring budget analysis duties which typically facilitate more complex review and analysis performed by supervisors or higher-level budget analysts. Initial assignments are designed to expand practical experience and to develop judgment in applying basic budget analysis techniques. Follows specific guidelines and previous budget reports in analyzing budgets for operating programs which are uniform and repetitive. Typical duties include:

Budget development: Assisting operating officials in preparing budget requests and justifications by gathering, extracting, reviewing, verifying, and consolidating a variety of narrative and statistical data; examining budget requests for accuracy and conformance with procedures and regulations; and comparing budget requests with prior year estimates and current operating reports; and/or

Budget administration: Screening requests for allocations of approved budgets and recommending approval, disapproval, or modification based on availability of funds and conformance with regulations; analyzing operating reports to monitor program expenditures and obligations; and summarizing narrative and statistical data in budget forms and reports.

Applies previously learned skills to perform routine work independently. Supervisor provides information regarding budgetary actions to be performed, organizational functions to be covered, and specific instructions for unfamiliar work or complex problems.

Budget Analyst III 1453

Uses a knowledge of commonly used budgetary procedures and practices, regulations, and organizational policies to analyze budgets for relatively stable operations (e.g., minor budget reprogramming is required two or three times a year). Forecasts funding needs for operating programs with varying annual requirements for goods, services, equipment, and personnel. Typical duties include:

Budget development: Reviews and verifies budget data for consistency with financial and program objectives; formulates and revises budget estimates; validates justifications through comparisons with operating reports; and explores funding alternatives based on precedents and guidelines; and/or

Budget administration: Certifies obligations and expenditures, monitors trends in spending, and anticipates funding and reprogramming needs; within established limits, recommends transfer of funds within accounts to cover increased expenditures; assembles data for use in preparing budget and program evaluations; and recommends the approval of or revises requests for allotments.

Carries out assignments independently in accordance with standard procedures and practices. Supervisor provides assistance on unfamiliar or unusual problems. May perform more complex assignments to assist supervisor or higher level analyst.

Budget Analyst IV 1454

Provides analytical support for budgets which require annual modifications due to changing work processes, resource needs, funding requirements, or fluctuating revenue. Interprets guidelines and precedents and advises operating managers concerning budgeting policies. May recommend new budgeting techniques. Typical duties include:

Budget development: Performs in-depth analysis of budget requests using techniques such as cost-benefit analysis and program trade-offs, and by exploring alternative methods of funding; writes and edits justifications for higher level approval; coordinates the compilation and evaluation of information required for executive level budget meetings; confers on modifications to budget requests; and interprets, revises, and develops procedures and instructions for preparing and presenting budget requests; and/or

Budget administration: Prepares a variety of reports detailing the status of funds, expenses, and obligations; identifies trends and recommends adjustments in program spending; advises management on budgeting deadlines and alternative means of accomplishing budgetary objectives; and serves as budgeting liaison between managers and staff of various organizational programs.

Participates with supervisor in determining deadlines for assigned projects, which are linked to the budget cycle and typically require more than a year for completion. Works independently for several months at a time, with little review, while work progresses.

Not classifiable by level 1459

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

☞ BUDGET ANALYST SUPERVISOR

As a first-line supervisor, supervises 3-14 budget analysts and support staff. Work requires substantial knowledge of budget formulation, analysis, and execution. Duties include planning and delegating work; monitoring performance; providing technical counsel; and evaluating work products. Recommends hirings and promotions, resolves complaints, effects minor disciplinary action, and arranges training. May direct staff through subordinate team leaders.

Excluded are second-line budget analyst supervisory positions.

Budget Analyst Supervisor I

1461

Budget analyst III represents the full performance level of subordinate staff supervised. In addition, at least two staff members, as well as 25% of the total subordinate staff performs at the Budget Analyst III (or equivalent) level.

Budget Analyst Supervisor II

1462

Budget analyst IV represents the full performance level of subordinate staff supervised. In addition, at least two staff members, as well as 25% of the total subordinate staff performs at the Budget Analyst IV (or equivalent) level.

Not classifiable by level 1469

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PUBLIC ACCOUNTANT

Performs professional auditing work in a public accounting firm. Work requires at least a bachelor's degree in accounting. Participates in or conducts audits to ascertain the fairness of financial representations made by client companies. May also assist the client in improving accounting procedures and operations.

Examines financial reports, accounting records, and related documents and practices of clients. Determines whether all important matters have been disclosed and whether procedures are consistent and conform to acceptable practices. Samples and tests transactions, internal controls, and other elements of the accounting system(s) as needed to render the accounting firm's final written opinion.

Excluded are positions which do not require full professional accounting training. Also excluded are specialist positions in tax or management advisory services.

Public Accountant I

1431

General characteristics. As an entry level public accountant, serves as a junior member of an audit team. Receives classroom and on-the-job training to provide practical experience in applying the principles, theories, and concepts of accounting and auditing to specific situations. (Positions held by trainee public accountants with advanced degrees, such as MBA's are excluded at this level.)

Direction received. Complete instructions are furnished and work is reviewed to verify its accuracy, conformance with required procedures and instructions, and usefulness in facilitating the accountant's professional growth. Any technical problems not covered by instructions are brought to the attention of a superior.

Typical duties and responsibilities. Carries out basic audit tests and procedures, such as: verifying reports against source accounts and records; reconciling bank and other accounts; and examining cash receipts and disbursements, payroll records, requisitions, receiving reports, and other accounting documents in detail to ascertain that transactions are properly supported and recorded. Prepares selected portions of audit working papers.

Public Accountant II

1432

General characteristics. At this level, the public accountant carries out routine audit functions and detail work with relative independence. Serves as a member of an audit team on assignments planned to provide exposure to a variety of client organizations and audit situations. Specific assignments depend upon the difficulty and complexity of the audit and whether the client has been previously audited by the firm. On moderately complex audits where there is previous audit experience by the firm, accomplishes complete segments of the audit (i.e., functional work areas such as cash, receivables, etc.). When assigned to more complicated audits, carries out activities similar to public accountant I.

Direction received. Works under the supervision of a higher level public accountant who provides instructions and continuing direction as necessary. Work is spot checked in progress and reviewed upon completion to determine the adequacy of procedures, soundness of judgment, compliance with professional standards, and adherence to clearly established methods and techniques. All interpretations are subject to close professional review.

Typical duties and responsibilities. Carries out a variety of sampling and testing procedures in accordance with the prescribed audit program, including the examination of transactions and verification of accounts, the analysis and evaluation of accounting practices and internal controls, and other detail work. Prepares a share of the audit working papers and participates in drafting reports. In moderately complex audits, may assist in selecting appropriate tests, samples, and methods commonly applied by the firm and may serve as primary assistant to the accountant in charge. In more complicated audits concentrates on detail work. Occasionally may be in charge of small, uncomplicated audits which require only one or two other subordinate accountants. Personal contacts usually involve only the exchange of factual technical information and are usually limited to the client's operating accounting staff and department heads.

Public Accountant III 1433

General characteristics. At this level the public accountant is in charge of a complete audit and may lead a team of several subordinates. Audits are usually accomplished one at a time and are typically carried out at a single location. The firms audited are typically moderately complex, and there is usually previous audit experience by the firm. The audit conforms to standard procedural guidelines, but is often tailored to fit the client's business activities. Routine procedures and techniques are sometimes inadequate and require adaptation. Necessary data are not always readily available. When assigned to more difficult and complex audits (see level IV), the accountant may run the audit of a major component or serve as the primary assistant to the accountant in charge.

Direction received. Works under the general supervision of a higher level public accountant who oversees the operation of the audit. Work is performed independently, applying generally accepted accounting principles and auditing standards, but assistance on difficult technical matters is available. Work may be checked occasionally during progress for appropriateness and adherence to time requirements, but routine analyses, methods, techniques, and procedures applied at the work site are expected to be correct.

Typical duties and responsibilities. Is responsible for carrying out the technical features of the audit, leading team members and personally performing the most difficult work. Carries out field work in accordance with the general format prescribed in the audit program, but selects specific methods and types and sizes of samples and tests. Assigns work to team members, furnishes guidance, and adjusts work loads to accommodate daily priorities. Thoroughly reviews work performed for technical accuracy and adequacy. Resolves anticipated problems with established guidelines and priorities but refers problems of unusual difficulty to superiors for discussion and advice. Drafts financial statements, final reports, management letters, and other closing memoranda. Discusses significant recommendations with superiors and may serve as technical resource at "closing" meetings with clients. Personal contacts are usually with chief accountants and assistant controllers of medium size companies and divisions of large corporations to explain and interpret policies and procedures governing the audit process.

Public Accountant IV 1434

General characteristics. At this level, the public accountant directs field work including difficult audits--e.g., those involving initial audits of new clients, acquisitions, or stock registration--and may oversee a large audit team split between several locations. The audit team usually includes one or more level III public accountants who handle major components of the audit. The audits are complex and clients typically include those engaged in projects which span accounting periods; highly regulated industries which have various external reporting requirements; publicly held corporations; or businesses with very high dollar or transaction volume. Clients are frequently large with a variety of operations which may have different accounting systems. Guidelines may be general or lacking and audit programs are intricate, often requiring extensive tailoring to meet atypical or novel situations.

Direction received. Works under general supervision. The supervisor sets overall objectives and resource limits but relies on the accountant to fully plan and direct all technical phases of the audit. Issues not covered by guidelines or known precedents are discussed with the supervisor, but the accountant's recommended approaches and courses of action are normally approved. Work is reviewed for soundness of approach, completeness, and conformance with established policies of the firm.

Typical duties and responsibilities. Is responsible for carrying out the operational and technical features of the audit, directing the work of team members, and personally performing the most difficult work. Often participates in the development of the audit scope, and drafts complicated audit programs with a large number of concurrently executed phases. Independently develops audit steps and detailed procedures, deviating from traditional methods to the extent required. Makes program adjustments as necessary once an audit has begun; selects specific methods, types and sizes of samples, the extent to which discrepancies need to be investigated, and the depth of required analyses. Resolves most operational difficulties and unanticipated problems.

Assigns work to team members; reviews work for appropriateness, conformance to time requirements, and adherence to generally accepted accounting principles and auditing standards. Consolidates working papers, draft reports, and findings; and prepares financial statements, management letters, and other closing memoranda for management approval. Participates in "closing" meetings as a technical resource and may be called upon to sell or defend controversial and critical observations and recommendations. Personal contacts are extensive and typically include top executives of smaller clients and mid- to upper-level financial and management officers of large corporations, e.g., assistant controllers and controllers. Such contacts involve coordinating and advising on work efforts and resolving operating problems.

NOTE: Excluded from this level are public accountants who direct field work associated with the complete range of audits undertaken by the firm, lead the largest and most difficult audits, and who frequently oversee teams performing concurrent audits. This type of work requires extensive knowledge of one or more industries to make subjective determinations on questions of tax, law, accounting, and business practices. Audits may be complicated by such factors as: the size and diversity of the client organizations (e.g., multinational corporations and conglomerates with a large number of separate and distinct subsidiaries); accounting issues where precedents are lacking or in conflict; and, in some cases, clients who are encountering substantial financial difficulties. They perform most work without technical supervision and completed audits are reviewed mainly for propriety of recommendations and conformance with general policies of the firm. Also excluded are public accountants whose principal function is to manage, rather than perform accounting work, and the equity owners of the firm who have final approval authority.

Not classifiable by level 1439

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

☞ TAX COLLECTOR

Collects delinquent taxes, canvasses for unreported taxes due, secures delinquent tax returns, and counsels taxpayers on filing and paying obligations. Tax collection typically begins after office examination of tax returns and financial records and subsequent notices of tax liability fail to collect full payment. Obtains and analyzes financial information, selects appropriate administrative or judicial remedy, and liquidates tax liability through such measures as compromise, installment agreements, and seizure and sale of property or other assets. Establishes liability for and imposes various penalties under State or County revenue codes. Serves summonses, takes testimony under oath, and testifies in court.

Work typically requires at least three years experience in general business or financial practices or the equivalent in education and experience combined. Level I is primarily for training and development. Level II is the full working level for tax collectors who follow standard procedures and level III includes specialists, team leaders, and quasi-supervisors solving moderately complex tax collection problems.

Tax collection involves two overlapping functions - returns investigation and collection of delinquent taxes. Returns investigations involve analyzing financial records, examining taxpayer's situation or business operations, and counseling taxpayers on statutory requirements and preparation of delinquent returns. Tax collectors primarily performing returns investigation work are not typically found above level II.

Collection of delinquent taxes involves analyzing a taxpayer's financial worth and ability to pay. In resolving delinquency, tax collectors evaluate (or use appraisers to evaluate): market value of assets; equity shares of other creditors; liens and ownership rights; taxpayer earning capacity; and the potential of taxpayer businesses. If bankruptcy is imminent, tax collectors file notices of lien to give their agency priority over subsequent creditors. If necessary, collectors take action for seizure and make arrangements for selling property. However, before resorting to enforced collection procedures, they may recommend alternatives such as installment payments, appointing escrow agents, or accepting collateral or mortgage arrangements to protect their agency's equity.

Excluded are tax collection supervisors. Incumbents in these full supervisory positions typically assign, coordinate, and review work; estimate personnel needs and schedules; evaluate performance; resolve complaints; and make recommendations for hiring and firing.

Tax Collector I

1481

Receives formal training in: internal revenue laws, regulations, and procedures; collection enforcement techniques and laws of evidence and procedures; and business fundamentals. On-the-job training is provided and progressively broader assignments are given for development purposes. Most assignments are simple, although more difficult work such as that encountered at level II may be performed under close supervision and guidance. Individuals hired typically have 1-2 years experience in accounting, loan, collection, or related area or equivalent education in accounting, business law, or related field of study.

Tax Collector II 1482

Follows standard procedures to collect delinquent tax accounts and secure delinquent returns. Receives specific assignments from supervisor and works out details independently. Explains to tax debtors sanctions which may be used in the event of nonpayment and procedures for appealing tax bills or assessments. Compiles prescribed records and reports. Refers problems to supervisor which cannot be resolved by applying standard procedures.

Tax Collector III 1483

As a tax collection specialist, team leader, or quasi-supervisor, conducts moderately complex investigations to detect or verify suspected tax violations according to established rules, regulations, and tax ordinances. Selects methods of approach, resolves problems referred by lower level tax collectors, and applies all remedies available to collect delinquent taxes. Prepares comprehensive records and reports. Trains lower level tax collectors and assists them in uniformly enforcing tax laws. May also assign, review, and coordinate work of lower level tax collectors.

Not classifiable by level 1489

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PERSONNEL SPECIALIST

Plans, administers, advises on, or performs professional work in one or more personnel specialties, such as:

Job Analysis/Evaluation: Analyzing, evaluating, and defining occupations or positions based on duties, responsibilities, and qualification requirements in order to establish or maintain a framework for equitable compensation.

Salary and Benefit Administration: Analyzing and evaluating compensation practices, participating in compensation surveys, and recommending pay and benefit adjustments.

Recruitment and Placement: Recruiting applicants through various sources (e.g., schools, colleges, employment agencies, newspapers, professional societies); evaluating applicants using qualification ratings, test scores, interviews, and reference checks; and recommending applicant placement.

Employee Development: Planning, evaluating, and administering employee training and development programs to achieve both organizational goals and personnel management objectives.

Employee Relations and Services: Providing guidance, advice, and assistance on such matters as employee services and benefits; management-employee communications; performance appraisals, grievances and appeals; equal employment opportunity; and employee conduct and discipline.

Equal Employment Opportunity: Planning, evaluating, and administering equal opportunity provisions.

Labor Relations: Advising and assisting management on a variety of labor relations matters, and negotiating and administering labor agreements on behalf of management.

In addition to the technical responsibilities described in levels I through VI, personnel specialists may also manage personnel functions and supervise subordinate staff. At levels I and II, the subordinate staff typically consists of clerks and paraprofessionals; level III may coordinate the work of lower level specialists; and levels IV and above may supervise subordinate specialists. Positions which are primarily supervisory, rather than technical, in nature (i.e., they are not readily matchable to the level-to-level distinctions in this definition) should be matched to the personnel supervisor/manager definition.

This broad, generic occupation includes specialists: (1) working in personnel operations; (2) reviewing and evaluating the quality of personnel programs; and (3) developing and revising personnel programs and procedures.

Excluded are:

a. positions matched to the WCP personnel director or personnel supervisor/manager definition;

b. clerical and paraprofessional positions;

c. labor relations specialists who negotiate with labor unions as the principal representative of their overall organization;

d. specialists with matchable titles (e.g., labor relations specialist, equal opportunity specialist) which are not part of the establishment's personnel program;

e. specialists in other occupations (e.g., nursing, organizational development, payroll, safety and health, security, and training), even if these positions are part of the establishment's personnel program;

f. positions not requiring: (1) three years of administrative, technical, or substantive clerical experience; (2) a bachelor's degree in any field; or (3) any equivalent combination of experience and education yielding basic skills in problem analysis and communication; and

g. positions employed by personnel supply service establishments (S.I.C. 736).

Classification by level

Establishment positions which meet the above criteria are matched at one of six levels. Primary leveling concepts are presented for each of the three options: (1) operations, (2) program evaluation, and (3) program development. These leveling concepts take precedent over typical duties and responsibilities in determining the level of a match. Job duties that are "moderately complex" in one establishment may be "procedural" in another establishment.

Personnel Specialist I (Operations Only) 1511

As a trainee, receives classroom and/or on-the-job training in the principles, procedures, and regulations of the personnel program and in the programs, policies, and objectives of the employing organization. Assignments provide experience in applying personnel management principles, procedures and techniques, while performing a variety of uncomplicated tasks under close supervision.

Personnel Specialist II 1512

Operations. Performs standard procedural duties which require the use of personnel management principles and techniques to identify and analyze personnel problems. Provides limited advice to management, such as informing departmental supervisors of typical duty patterns which comprise an occupational level or of types of candidates available for a type of particular job. Receives specific instructions with each new assignment.

Program evaluation and development. Assists higher level specialists in preliminary phases of evaluation or development. Receives increasingly difficult assignments under close supervisory guidance and review.

Typical duties include: analyzing and evaluating nonexempt jobs using standard procedures; participating in recruitment or compensation surveys for nonexempt jobs; rating applicants using established guides; explaining established policies, procedures, or regulations to employees or management; and performing limited tasks to assist higher level specialists in employee development, employee relations, and labor relations programs.

Personnel Specialist III 1513

Operations. Performs moderately complex assignments following established policies and guidelines. Work requires experience both in a personnel specialty and in the organization serviced. Advises management on the solution to personnel problems of limited scope for which there are precedents. Renders advice concerning own specialty, but discusses impact on other personnel areas. Works independently under specified objectives; closer supervision is provided for complex assignments, precedent-setting actions, and actions that impact either other functional areas or key working relationships.

Program evaluation and development. Assists higher level specialists or managers by studying less complex aspects of personnel programs (e.g., merit promotions, incentive awards), resolving problems of average difficulty, and reporting findings to be included in evaluation reports.

Typical duties include: analyzing, evaluating, and defining both exempt and nonexempt jobs in various occupational groups using established procedures; participating in surveys of broad compensation areas; recruiting and screening applicants for both exempt and nonexempt jobs, checking references and recommending placement; assisting in identifying training needs and arranging training, initiating personnel actions or awards, and interpreting established personnel policy, regulations, and precedents; or participating in preparing for and conducting labor negotiations.

Personnel Specialist IV 1514

Operations. Applies to three different work situations. In situation (1), specialists use technical knowledge, skills, and judgment to solve complex technical problems. Advisory services to management are similar to those described at level III. Situation (2) combines typical level III operating skills with comprehensive management advisory services. Advisory services require high technical skills, along with broad personnel knowledge, to solve problems from a total personnel management perspective. In situations (1) and (2), specialists plan and complete work following established program goals and objectives. Their judgments and recommendations are relied on for management decisions.

Situation (3) applies to specialists who are solely responsible for performing moderately complex assignments (as described in level III) and for rendering final decisions on assigned personnel matters under general administrative supervision. Responsibilities include planning and scheduling work and coordinating and integrating program(s) with other personnel, management, and operational activities.

Program evaluation. Conducts on-site review of personnel actions in several organizational units; determines factual basis for personnel actions, evaluates actions for consistency with established guidelines, and reports significant findings.

Program development. Independently develops supplemental guidelines for existing procedures.

Typical duties include: analyzing, evaluating, and defining difficult exempt jobs, i.e., those in research and development, administration, law, and computer science; planning and conducting broad compensation surveys and recommending pay and benefit adjustments; developing training plans and procedures for an organizational segment; participating in complex employee-management relations issues such as controversies, poor morale, and high turnover; or developing plans and procedures for labor negotiations in a moderately complex organization.

Personnel Specialist V 1515

Operations. Applies to two different work situations. In situation (1), specialists solve unusually complex and unprecedented problems which require creative solutions. In situation (2), specialists are assigned complex technical problems (as described in level IV - situation (1)) combined with responsibility for providing comprehensive advice to management. Management advisory services are complicated by jobs and organizations that are complex, new, or dynamic, and by the abstract nature of the work processes. Supervision and guidance relate largely to program goals and time schedules. Specialists are authorized to make decisions for their organizations and consult with their supervisors concerning unusual problems and developments.

Program evaluation. Independently evaluates personnel programs to determine the degree to which they are achieving goals and objectives, ascertaining weaknesses in programs and guidelines, and making recommendations for improvements. Conclusions are reported to top management.

Program development. Applies expertise in modifying procedures and guidelines. Projects are usually narrow in scope, i.e., limited to an occupational field or to a specific program area. May have full technical responsibility for personnel projects, studies, policies, or programs that are less complex than described at level VI.

Typical duties include: participating in the development of personnel policies and procedures; analyzing, evaluating, and defining unusually difficult jobs, e.g., those in emerging occupations which lack applicable guidelines, or in organizations so complex and dynamic that it is difficult to determine the extent of a position's responsibility; recruiting candidates for one-of-a-kind jobs; participating in employee-management relations where the underlying issues are difficult to identify; planning and administering a comprehensive employee development program; or performing labor relations assignments for a large conglomerate.

Personnel Specialist VI 1516

Program evaluation. Applies to three different work situations. In situation (1), specialists evaluate the personnel management program of large, complex organizations. Such evaluations require broad understanding and sensitivity both to the interrelationships between different personnel programs and to complex organizational and management relationships. In situation (2), specialists provide advice to management in improving personnel programs in unusually complex organizations. Such expertise extends beyond knowledge of guidelines, precedents, and technical principles into areas of program management and administration. In situation (3), specialists serve as evaluation experts assigned to uniquely difficult and sensitive personnel problems, e.g., solutions are unusually controversial; specialists are required to persuade and motivate key officials to change major personnel policies or procedures; or problems include serious complaints where facts are vague.

Program development. Specialists have full technical responsibility for unusually complex personnel projects, studies, policies, or programs. The scope and impact of these assignments are broad and are of considerable importance to organizational management.

Supervision received is essentially administrative, with assignments given in terms of broad general objectives and limits.

Not classifiable by level 1519

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PERSONNEL SUPERVISOR/MANAGER

Supervises three or more personnel specialists and/or clerks and paraprofessionals. Although the work is supervisory in nature, it requires substantial knowledge of personnel policies, procedures, and practices.

Excluded are:

a. positions matched as WCP directors of personnel or personnel specialists;

b. labor relations positions which are primarily responsible for negotiating with labor unions as the principal representative of their overall organization;

c. supervisory positions having both a base level below personnel specialist III and requiring technical expertise below personnel specialist IV; and

d. positions also having significant responsibility for functional areas beyond personnel (e.g., payroll, purchasing, or administration).

Classification by Level

Supervisory jobs are matched at one of five levels according to two factors: a) base level of work supervised, and b) level of supervision. The table following the explanations of these factors indicates the level of the supervisor for each combination of factors.

BASE LEVEL OF WORK

Conceptually, the base level of work is the highest level of nonsupervisory work under the direct or indirect supervision of the supervisor/manager which (when added to the nonsupervisory levels above it) represents at least 25 percent of the total nonsupervisory, nonclerical staff and at least two of the full-time positions supervised.

To determine the base level of nonsupervisory, nonclerical work: 1) array the positions by level of difficulty; 2) determine the number of workers in each position; and 3) count down from the highest level (if necessary) until at least 25 percent of the total nonsupervisory, nonclerical staff are represented.

Establishment supervisory positions matched in the personnel specialist series should be counted as "non-supervisory" in computing the base level for personnel supervisor/manager matches.

Due to the unique nature of this particular occupation series, the mechanics of the base level concept are often not applicable in determining the appropriate job level of a personnel supervisor/manager. See Alternative Criteria For Matching Personnel Supervisors/Managers at the end of this definition for assistance in assuring correct job matches.

LEVEL OF SUPERVISION

Supervisors and managers should be matched at one of the three LS levels below which best describes their supervisory responsibility.

LS-1 Plans, coordinates, and evaluates the work of a small staff, normally not more than 10 personnel specialists, paraprofessionals, and clerks; estimates staffing needs for personnel unit and schedules, assigns, and reviews work to meet completion date; interviews candidates for own unit and recommends hires, promotions, or reassignments; and resolves complaints, referring group grievances and more serious unresolved complaints to higher level supervisors; may reprimand employees.

LS-2 Directs a sizable staff (normally 10-20 employees), typically divided into subunits controlled by subordinate supervisors; advises higher level management on work problems of own unit and the impact on broader programs; collaborates with heads of other units to negotiate and/or coordinate work changes; makes decisions on work or training problems presented by subordinate supervisors; evaluates subordinate supervisors and reviews their evaluations of their employees; selects nonsupervisors (higher level approval is virtually assured) and recommends supervisory selections; and hears group grievances and serious or unresolved complaints. May shift resources among projects and perform long range budget planning.

NOTE: In rare instances, supervisory positions responsible for directing a sizable staff (e.g., 10-20 professional employees) may not have subordinate supervisors, but have all other LS-2 responsibilities. Such positions should be matched to LS-2.

LS-3 Directs 2 subordinate supervisory levels and the work force managed typically includes substantially more than 20 employees. Makes major decisions and recommendations (listed below) which have a direct, important, and substantial effect on own organization and work. Performs at least three of the following:

- decides what programs and projects should be initiated, dropped, expanded, or curtailed;
- determines long range plans in response to program changes, evaluates program goals, and redefines objectives;
- determines changes to be made in organizational structure, delegation of authority, coordination of units, etc.;
- decides what compromises to make in program operations in view of public relations implications and need for support from various groups;
- decides on the means to substantially reduce program operating costs without impairing overall operations; justifies major equipment expenditures; and
- resolves differences between key subordinate officials; decides, or significantly affects final decisions, on personnel actions for subordinate supervisors and other key subordinates.

CRITERIA FOR MATCHING PERSONNEL SUPERVISORS/MANAGERS

Base Level of Nonsupervisory Job(s)	Level of Supervision		
Matched in the Personnel Specialist Definition	LS-1	LS-2	LS-3
III	I(1531)	II(1532)	III(1533)
IV	II(1532)	III(1533)	IV(1534)
V	III(1533)	IV(1534)	V(1535)
VI	IV (1534)	V(1535)	Exclude

LEVEL EQUIVALENTS OF WCP PERSONNEL PROFESSIONAL OCCUPATIONS

Personnel Specialist	Personnel Supervisor/Manager	Director of Personnel
I		
II		
III		
IV	I	I
V	II	II
VI	III	III
	IV	IV
	V	V

ALTERNATIVE CRITERIA FOR MATCHING PERSONNEL SUPERVISOR/MANAGERS

a. Base level artificially low. The leanness of subordinate staff often combines with the appropriate LS level to produce a level of supervisor/manager which is below the supervisor/manager's level of technical expertise, as measured by the personnel specialist definition. In these instances, raise the level of the supervisor/manager match to correlate to the equivalent level of personnel specialist (see chart above).

b. Relationship between supervisor/manager and director of personnel matches. Personnel supervisor/managers should be matched below the equivalent level of the personnel director to whom they report (see chart above).

c. Matching assistant directors of personnel. In rare instances, establishment pay for an assistant director of personnel is based on the director's pay, rather than either the level and size of subordinate staff or the assistant director's technical expertise. In these instances, a reasonable solution usually consists of matching the assistant director to the supervisor/manager definition, one WCP level below the equivalent level of the director of personnel match (see chart above).

Not classifiable by level 1539

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

DIRECTOR OF PERSONNEL

Directs a personnel management program for an organization or segment of an organization. Serves top management officials as the source of advice and assistance on personnel management matters and problems generally; is typically consulted on the personnel implications of planned changes in management policy or programs, the effects on the organization of economic or market trends, product or production method changes, changes in legislation, etc.; represents management in contacts with other organizations, dealing primarily with personnel management matters.

Typically, the director of personnel for an overall organization reports to a policy-making official in charge of administration and personnel management activities or to an officer of similar level. However, in industries such as health care, banking, and retail trade, where precedents exist for most personnel policies and procedures, the director of personnel may report directly to the chief operating officer. Below the headquarters level, the director of personnel typically reports to a management official responsible for operating an organizational segment.

For a job to be covered by this definition, the personnel management program must include significant responsibility for all three of the following functions:

1. Administering a job evaluation system; i.e., a system in which there are established procedures by which jobs are analyzed and evaluated on the basis of their duties, responsibilities, and qualification requirements in order to provide a foundation for equitable compensation. Such a system may include: the use of job evaluation factors; the preparation of formal job descriptions; and such related functions as wage and salary surveys and merit rating system administration. The job evaluation system(s) must cover a substantial portion of the jobs in the organization.

2. Employment and placement function; i.e., recruiting actively for at least some kinds of workers through a variety of sources (e.g., schools or colleges, employment agencies, professional societies); evaluating applicants against demands of particular jobs by use of such techniques as job analysis, interviews, written tests of aptitude, knowledge or skill, reference checks, and experience evaluations; and recommending selections and job placements to management.

3. Employee relations and service function; i.e., functions designed to maintain employee morale and productivity at a high level (e.g., administering a formal or informal grievance procedure; identifying and recommending solutions for personnel problems such as absenteeism, high turnover, and low productivity; administering suggestion, retirement pension, insurance and, merit rating programs; or overseeing cafeteria operations, recreational programs, and health and safety programs).

In addition, positions covered by this definition may, but do not necessarily, include responsibilities in the following areas:

a. employee training and development;

b. labor relations activities which are confined mainly to the administration, interpretation, and application of those aspects of labor union contracts that are essentially of the type described under (3) above. May also participate in bargaining of a subordinate nature, e.g., to negotiate detailed settlement of such matters specific rates, job classifications, work rules, or hiring and layoff procedures, within the broad terms of a general agreement reached at higher levels, or to supply advice and information on technical points to the organization's principal representative;

c. Equal Employment Opportunity (EEO); or

d. reporting under the Occupational Safety and Health ACT (OSHA).

Excluded are:

a. positions in which responsibility for actual contract negotiation with labor unions as the principal representative of the organization is a significant aspect of the job, i.e., a responsibility which serves as a primary basis for qualification requirements or compensation;

b. positions servicing less than 250 (FTE) employees;

c. positions participating in the management and formulation of policy for the overall organization in addition to directing its personnel program;

and

d. positions responsible for directing a personnel program but which do not fully meet all of the responsibilities of a director of personnel. These positions should be matched to either the personnel specialist or personnel supervisor/manager definition.

Director of personnel jobs which meet the above definition are classified by level of work in accordance with the following tabulation:

CRITERIA FOR MATCHING DIRECTORS OF PERSONNEL BY LEVEL

Number of employees in work force serviced (FTE)	"Operations level" personnel program 1/		"Development level" personnel program 2/	
	"Type A" organ. serviced 3/	"Type B" organ. serviced 4/	"Type A" organ. serviced 3/	"Type B" organ. serviced 4/
250-750	I(1521)	II(1522)	II(1522)	III(1523)
1,000-5,000	II(1522)	III(1523)	III(1523)	IV(1524)
6,000-12,000	III(1523)	IV(1524)	IV(1524)	V(1525)
15,000-25,000	IV(1524)	V(1525)	V(1525)	-

1/ "Operations level" personnel program--director of personnel servicing an organization segment where the basic personnel program policies, plans and objectives are established at a higher organizational level (e.g., headquarters). The personnel director's responsibility is to put these into operation in such a manner as to most effectively serve local management needs.

2/ Development level" personnel program--either:

a. Director of personnel servicing an overall organization (with or without subordinate segments) where the personnel director plays and important role in establishment of basic personnel policies, plans, and objectives subject to policy direction and control from policy-making officials. In industries where precedents exist for most personnel policies and procedures, developmental authority is generally reserved for the top personnel official in an organization.

OR

b. Director of personnel servicing an intermediate organization below the headquarters level, e.g., a division or subsidiary, to which a relatively complete delegation of personnel program planning and development responsibility is made. In this situation, only basic policy direction is given by the parent organization and local officials. The director of personnel has essentially the same degree of latitude and responsibility for establishment of basic personnel policies, plans, and objectives as described above in paragraph (a).

3/ "Type A" organization serviced--most jobs serviced do not present particularly difficult or unusual recruitment, job evaluation, or training problems because the jobs consist of relatively easy-to-understand work processes, and an adequate labor supply is available. These conditions are most likely to be found in organizations in which the work force and organizational structure are relatively stable.

4/ "Type B" organization serviced--a substantial proportion of the jobs present difficult recruitment, job evaluation, or training problems because the jobs: consist of hard-to-understand work processes (e.g., professional, scientific, administrative, or technical); have hard-to-match skill requirements; are in new or emerging occupations; or are extremely hard to fill. These conditions are most likely to be found in organizations in which the work force, organizational structure, work processes or function, etc., are complicated or unstable.

NOTE: There are gaps between the elements used to determine job levels. These gaps have been provided purposely to allow room for judgment. For example, an "operations" position which services 850 employees should be matched at level II if the organization serviced falls slightly below type B. However, the same position should be matched at level I if the organization serviced clearly fits type A.

Not classifiable by level 1529

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

ATTORNEY

Performs consultation and advisory work and carries out the legal processes necessary to effect the rights, privileges, and obligations of the organization. The work performed requires completion of law school with an L.L.B. degree (or the equivalent) and admission to the bar. Responsibilities or functions include one or more of the following or comparable duties:

preparing and reviewing various legal instruments and documents, such as contracts, leases, licenses, purchases, sales, real estate, etc.;

acting as agent of the organization in its transactions;

examining material (e.g., advertisements, publications, etc.) for legal implications; advising officials of proposed legislation which might affect the organization;

applying for patents, copyrights, or registration of the organization's products, processes, devices, and trademarks; advising whether to initiate or defend law suits;

conducting pretrial preparations; defending the organization in lawsuits; and

advising officials on tax matters, government regulations, and/or legal rights.

Excluded from this definition are:

patent work which requires professional training in addition to legal training (typically, a degree in engineering or in a science);

claims examining, claims investigating, or similar work for which professional legal training and bar membership is not essential;

attorneys, frequently titled "general counsel" or "attorney general" (and their immediate full associates or deputies), who are responsible for participating in the management and formulation of policy for the overall organization in addition to directing its legal work. (The duties and responsibilities of such positions exceed level VI as described below);

attorneys in legal firms; and,

attorneys primarily responsible for: prosecuting defendants; drafting legislation; defending the general public (e.g., public defenders, student's attorneys); and planning and producing legal publications.

Attorney jobs which meet the above definitions are to be classified and coded in accordance with the chart below.

Criteria for matching attorneys by level

Level and code	Difficulty level of legal work		Responsibility level of job	Experience required
I (1601)	This is the entry level. The duties and responsibilities after initial orientation and training are those described in D-1 and R-1.			Completion of law school with an L.L.B. or J.D. degree plus admission to the bar.
II (1602)	D-1 D-2	or	R-2 R-1	Sufficient professional experience (at least 1 year, usually more) at the "D-1" level to assure competence as an attorney.
III (1603)	D-2		R-2	At least 1 year, usually more, of professional experience at the "D-2" level.
IV (1604)	D-2 D-3	or	R-3 R-2	Extensive professional experience at the "D-2" or a higher level.
V (1605)	D-2 D-3	or	R-4 R-3	Extensive professional experience at the "D-3" or "R-3" levels.
VI (1606)	D-3		R-4	Extensive professional experience at the "D-3" and "R-3" levels.

D-1, -2, -3, and R-1, -2, -3, and -4 are explained on the following pages.

Difficulty

D-1

Legal questions are characterized by: facts that are well established; clearly applicable legal precedents; and matters not of substantial importance to the organization. (Usually relatively limited sums of money, e.g., a few thousand dollars, are involved.)

Examples of D-1 work are:

a. legal investigation, negotiation, and research preparatory to defending the organization in potential or actual lawsuits involving alleged negligence where the facts can be firmly established and there are precedent cases directly applicable to the situation;

b. searching case reports, legal documents, periodicals, textbooks, and other legal references, and preparing draft opinions on employee compensation or benefit questions where there is a substantial amount of clearly applicable statutory, regulatory, and case material; and

c. drawing up contracts and other legal documents in connection with real property transactions requiring the development of detailed information but not involving serious questions regarding titles to property or other major factual or legal issues.

D-2

Legal work is regularly difficult by reason of one or more of the following: the absence of clear and directly applicable legal precedents; the different possible interpretations that can be placed on the facts, the laws, or the precedents involved; the substantial importance of the legal matters to the organization (e.g., sums as large as $100,000 are generally directly or indirectly involved); or the matter is being strongly pressed or contested in formal proceedings or in negotiations by the individuals, corporations, or government agencies involved.

Examples of D-2 work are:

a. advising on the legal implications of advertising representations when the facts supporting the representations and the applicable precedent cases are subject to different interpretations;

b. reviewing and advising on the implications of new or revised laws affecting the organization;

c. presenting the organization's defense in court in a negligence lawsuit which is strongly pressed by counsel for an organized group; and

d. providing legal counsel on tax questions complicated by the absence of precedent decisions that are directly applicable to the organization's situation.

D-3

Legal work is typically complex and difficult because of one or more of the following: the questions are unique and require a high order of original and creative legal endeavor for their solution; the questions require extensive research and analysis and the obtaining and evaluation of expert testimony regarding controversial issues in a scientific, financial, corporate organization, engineering, or other highly technical area; the legal matter is of critical importance to the organization and is being vigorously pressed or contested (e.g., sums such as $1 million or more are generally directly or indirectly involved.)

Examples of D-3 work are:

a. advising on the legal aspects and implications of Federal antitrust laws to projected greatly expanded marketing operations involving joint ventures with several other organizations;

b. planning legal strategy and representing a utility company in rate or government franchise cases involving a geographic area including parts or all of several States;

c. preparing and presenting a case before an appellate court where the case is highly important to the future operation of the organization and is vigorously contested by very distinguished (e.g., having a broad regional or national reputation) legal talent;

d. serving as the principal counsel to the officers and staff of an insurance company on the legal problems in the sale, underwriting, and administration of group contracts involving nationwide or multi-state coverages and laws; and

e. performing the principal legal work in nonroutine, major revision of a company's charter or in effectuating new major financing steps.

Responsibility

R-1

Responsibility for final action is usually limited to matters covered by legal precedents and in which little deviation from standard practice is involved. Any decisions or actions having a significant bearing on the organization's business are reviewed. Is given guidance in the initial states of assignment, e.g., in planning and organizing level research and studies. Assignments are then carried out with moderate independence, although guidance is generally available and is sought from time to time on problem points.

R-2

Usually works independently in investigating the facts, searching legal precedents, defining the legal and factual issues, drafting the necessary legal documents, and developing conclusions and recommendations. Decisions having an important bearing on the organization's business are reviewed. Receives information from supervisor regarding unusual circumstances or important policy considerations pertaining to a legal problem. If trials are involved, may receive guidance from a supervisor regarding presentation, line of approach, possible line of opposition to be encountered, etc. In the case of nonroutine written presentations, the final product is reviewed carefully, but primarily for overall soundness of legal reasoning and consistency with organization policy. Some, but not all, attorneys make assignments to one or more lower level attorneys, aides, or clerks.

R-3

Carries out assignments independently and makes final legal determination in matters of substantial importance to the organization. Such determinations are subject to review only for consistency with organization policy, possible precedent effect, and overall effectiveness. To carry out assignments, deals regularly with officers of the organization and top level management officials and confers or negotiates regularly with senior attorneys and officials in other organizations on various aspects of assigned work. Receives little or no preliminary instruction on legal problems and a minimum of technical legal supervision. May assign and review work of a few attorneys, but this is not a primary responsibility.

R-4

Carries out assignments which entail independently planning investigations and negotiations on legal problems of the highest importance to the organization and developing completed brief, opinions, contracts, or other legal products. To carry out assignments, represents the organization at conferences, hearings, or trials, and personally confers and negotiates with top attorneys and top-ranking officials in other organizations. On various aspects of assigned work, may give advice directly and personally to organization officials and top level managers, or (in extremely large and complex organizations) may work through a higher level attorney in advising officials. Generally receives no preliminary instructions on legal problems. On matters requiring the concentrated efforts of several attorneys or other specialists, is responsible for directing, coordinating, and reviewing the work of the attorneys involved.

OR

As a primary responsibility, directs the work of a staff of attorneys, one, but usually more, of who regularly perform either D-3 or R-3 legal work. With respect to the work directed, gives advice directly to organization officials and top managers, or (in extremely large and complex organizations) may give such advice through counsel. Receives guidance as to organization policy but not technical supervision or assistance except when requesting advice from or briefing by, a higher level attorney on the overall approach to the most difficult, novel or important legal questions.

Not classifiable by level 1609

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

BUYER/CONTRACTING SPECIALIST

☞ Purchases materials, supplies, equipment, and services (e.g., utilities, maintenance, and repair) **and/or administers purchase contracts (assuring compliance after contract is awarded).** In some instances items purchased are of types that must be specially designed, produced, or modified by the vendor in accordance with drawings or engineering specifications.

☞ Solicits bids, analyzes quotations received, and selects or recommends suppliers. **At levels III and higher, formal contract negotiation methods are typically used where knowledge of market trends and conditions is required.** May interview prospective vendors.

☞ Purchases items and services **or negotiates contracts** at the most favorable price consistent with quality, quantity, specification requirements, and other factors. Prepares or supervises preparation of purchase orders from requisitions. May expedite delivery and visit vendors' offices and plants.

Normally, purchases are unreviewed when they are consistent with past experience and are in conformance with established rules and policies. Proposed purchase transactions that deviate from the usual or from past experience in terms of prices, quality of items, quantities, etc., or that may set precedents for future purchases, are reviewed by higher authority prior to final action.

☞ **Contract administration includes determining allowable costs, monitoring contractor compliance with contract terms, resolving problems concerning obligations of the parties, explaining and renegotiating contract terms, and ensuring satisfactory contract completion.**

☞ In addition to work described above, some (but not all) buyers **or contracting specialists** direct the work of one or a few clerks who perform routine aspects of the work. As a secondary and subsidiary duty, some buyers may also sell or dispose of surplus, salvage, or used materials, equipment, or supplies.

☞ Note: Some buyers **or contracting specialists** are responsible for the purchasing or contract administration of a variety of items and materials. When the variety includes items and work described at more than one of the following levels, the position should be considered to equal the highest level that characterizes at least a substantial portion of the buyer's time.

Excluded are:

a. buyers of items for direct sale, either wholesale or retail;

b. brokers and dealers buying for clients or for investment purposes;

c. positions that specifically require professional education and qualifications in a physical science or in engineering (e.g., chemist, mechanical engineer);

d. buyers who specialize in purchasing a single or a few related items of highly variable quality such as raw cotton or wool, tobacco, cattle, or leather for shoe uppers, etc. Expert personal knowledge of the item is required to judge the relative value of the goods offered, and to decide the quantity, quality, and price of each purchase in terms of its probable effect on the organization's profit and competitive status;

☞ e. buyers **or contracting specialists** whose principal responsibility is the supervision of a purchasing **or contracting** program;

f. persons whose major duties consist of ordering, reordering, or requisitioning items under existing contracts;

g. positions restricted to clerical functions or to purchase expediting work;

h. positions not requiring: 1) three years of administrative, technical, or substantive clerical experience; 2) a bachelor's degree in any field; or 3) any equivalent combination of experience and education yielding basic skills in problem analysis and communication; and

☞ **i. contracting specialists above level V having broad responsibilities for resolving critical problems on major long-term purchases, developing new approaches or innovative acquisition plans, and/or developing procurement policies and procedures. These specialists use extensive judgment and originality to plan procurement strategies for large scale acquisition programs or systems.**

Buyer /Contracting Specialist I 1811

Purchases "off-the-shelf" types of readily available, commonly used materials, supplies, tools, furniture, services, etc.

Transactions usually involve local retailers, wholesalers, jobbers, and manufacturers' sales representatives.

Quantities purchased are generally small amounts, e.g., those available from local sources.

Examples of items purchased include: common stationery and office supplies; standard types of office furniture and fixtures; standard nuts, bolts, screws; janitorial and common building maintenance supplies; or common utility services or office machine repair services.

OR

☞ **As a trainee, performs various clearly defined procurement tasks designed to increase the employee's knowledge and understanding of procurement and contracting concepts, principles, practices, and procedures. Examples of duties include: assisting in the preparation of solicitation documents; analyzing prices, discounts, and delivery dates; making procurement recommendations; and drafting simple contract provisions and supporting documentation. Work is performed under close supervision.**

Buyer/Contracting Specialist II — 1812

Purchases "off-the-shelf" types of standard, generally available technical items, materials, and services. Transactions may involve occasional modification of standard and common usage items, materials, and services, and include a few stipulations about unusual packing, marking, shipping, etc.

☞ Transactions usually involve dealing directly with manufacturers, distributors, jobbers, etc. **Limited contract negotiation techniques may be used, primarily for developmental purposes to increase employee's skill and knowledge.**

Quantities of items and materials purchased may be relatively large, particularly in the case of contracts for continuing supply over a period of time.

May be responsible for locating or promoting possible new sources of supply. Usually is expected to keep abreast of market trends, changes in business practices in the assigned markets, new or altered types of materials entering the market, etc.

> Examples of items purchased or under contract include: standard industrial types of hand tools, gloves, and safety equipment; standard electronic parts, components, and component test instruments; electric motors; gasoline service station equipment; PBX or other specialized telephone services; special purpose printing services; custodial services for a large building; and routine purchases of common raw materials such as standard grades and sizes of steel bars, rods, and angles.

Also included at this level are buyers of materials of the types described for Buyer I when the quantities purchased are large, so that local sources of supply are generally inadequate and the buyer must deal directly with manufacturers on a broader than local scale.

OR

☞ **In a developmental position, assists higher level buyers or contracting specialists in purchasing, and/or negotiating contracts for items, materials, or services of a technical and specialized nature. Assigned work is designed to provide diversified experience, as a background for future higher level work. Examples of duties include: reviewing requisitions and drafting solicitations; evaluating bids and the dependability of suppliers; meeting with commercial representatives; and monitoring the progress of contractors. Supervisor provides general instructions, monitors work, and reviews recommendations. Standard or routine aspects of work are performed with greater independence.**

Buyer/Contracting Specialist III 1813

☞ Purchases items, materials, or services of a technical and specialized nature, **usually by negotiating a standard contract based on reimbursement of costs and expenses or a fixed price ceiling. May be responsible for overseeing the postaward (contract administration) functions (e.g., monitoring contract compliance, recommending action on problem situations, and negotiating extensions of delivery schedules) of such contracts.** The items, while of a common general type, are usually made, altered, or customized to meet the user's specific needs and specifications.

☞ The number of potential vendors is likely to be small and price differentials often reflect important factors (quality, delivery dates and places, etc.) that are difficult to evaluate.

The quantities purchased of any item or service may be large.

Many of the purchases involve one or more such complications as: specifications that detail, in technical terms, the required physical, chemical, electrical, or other comparable properties; special testing prior to acceptance; grouping of items for lot bidding and awards; specialized processing, packing, or packaging requirements; export packs; overseas port differentials; etc.

Is expected to keep abreast of market and product developments. May be required to locate new sources of supply.

Some positions may involve assisting in the training or supervision of lower level buyers or clerks.

Examples of items purchased include: castings; special extruded shapes of normal size and material; special formula paints; electric motors of special shape or speeds; production equipment; special packaging of items; raw materials in substantial quantities or with special characteristics; and protective services where security presents an especially significant problem.

Buyer/Contracting Specialist IV 1814

☞ **Negotiates and/or administers purchase contracts for** complex and **highly** technical items, materials, or services, **frequently** specially designed and manufactured exclusively for the purchaser.

☞ Transactions require dealing with manufacturers and often involve persuading potential vendors to undertake the manufacture of custom designed items according to complex and rigid specifications. **Negotiation techniques are also frequently involved with convincing the vendor to reduce costs.**

☞ Quantities of items and materials purchased are often large in order to satisfy the requirements for an entire large organization for an extended period of time. Complex schedules of delivery are often involved. **Contracting specialists** determine appropriate quantities to be contracted for at any given period of time **and negotiate with vendors to establish or adjust delivery schedules.**

☞ **Negotiations and contract administration** are often complicated by the following: requirements for spare parts, preproduction samples and testing, or technical literature; patent and royalty provisions; or **renegotiation of contract terms. In reviewing contract proposals, extensive cost analysis is required to evaluate the cost of such factors as 1) numerous technical specifications, and 2) potential changes in manufacturing processes that might affect projected cost figures. These complications result in the incorporation of numerous special provisions and incentives in renegotiated contracts.**

In addition to the work described above, a few positions may also require supervision of a few lower level buyers, **contracting specialists** or clerks. (No position is included in this level solely because supervisory duties are performed.)

Examples of items purchased include: special purpose high-cost machine tools and production facilities; specialized condensers, boilers, and turbines; raw materials of critically important characteristics or quality; and parts, subassemblies, components, etc., specially designed and made to order (e.g., communications equipment for installation in aircraft being manufactured; component assemblies for missiles and rockets; and motor vehicle frames).

☞ Buyer/Contracting Specialist V 1815

Performs one of the following:

1. Serves as lead negotiator or contract administrator for: new or unique equipment; extensive technical or professional services; or complex construction projects where there is a lack of previous experience or competition, extensive subcontracting, or similar complications. Examples of contracts include prototype development of sophisticated research and testing equipment, software systems development, scientific studies involving waste and transportation systems, facilities for production of weapons systems, and research laboratories requiring special equipment.

2. Performs large-scale centralized purchasing or contract administration for a multi-unit organization or large establishment that requires either items with unique requirements as to construction, testing, durability, or quality characteristics, or organization-wide services. Examples of contracts include organization-wide software or communication systems, and industry-specific testing equipment with unique specifications.

May persuade suppliers to expand their plants or convert facilities to the production of new items or services.

Transactions are often complicated by technological changes, urgent needs to override normal production, great volume of production, commodity shortages, and lack of competition among vendors. Frequent technological changes require delays or modifications to contract proposals or to existing contracts. In-depth cost analysis is required, often with little pricing precedent due to the unique aspects of the products.

Contracts are usually long-term (exceeding 2 years) and involve numerous subcontracts and special provisions that must be changed and renegotiated throughout the duration of the contract.

Not classifiable by level 1819

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

COMPUTER PROGRAMMER

Performs programming services for establishments or for outside organizations who may contract for services. Converts specifications (precise descriptions) about business or scientific problems into a sequence of detailed instructions to solve problems by electronic data processing (EDP) equipment, i.e., digital computers. Draws program flow charts to describe the processing of data and develops the precise steps and processing logic which, when entered into the computer in coded language (COBOL, FORTRAN, or other programming language), cause the manipulation of data to achieve desired results. Tests and corrects programs and prepares instructions for operators who control the computer during runs. Modifies programs to increase operating efficiency or to respond to changes in work processes; maintains records to document program development and revisions.

At levels I, II, and III, computer programmers may also perform programming analysis such as: gathering facts from users to define their business or scientific problems and to investigate the feasibility of solving problems through new or modified computer programs; developing specifications for data inputs, flow, actions, decisions, and outputs; and participating on a continuing basis in the overall program planning along with other EDP personnel and users.

In contrast, at levels IV and V, some programming analysis must be performed as part of the programming assignment. The analysis duties are identified in a separate paragraph at levels I, II, III, and IV, and are part of each alternative described at level V. However, the systems requirements are defined by systems analysts or scientists.

Excluded are:

a. positions which require a bachelor's degree in a specific scientific field (other than computer science), such as an engineering, mathematics, physics, or chemistry degree; however, positions are potential matches where the required degree may be from any of several possible scientific fields;

b. positions responsible for developing and modifying computer systems;

c. computer programmers who perform level IV or V duties but who perform no programming analysis;

d. workers who primarily analyze and evaluate problems concerning computer equipment or its selection or utilization;

e. computer systems programmers or analysts who primarily write programs or analyze problems concerning the system software, e.g., operating systems, compilers, assemblers, system utility routines, etc., which provide basic services for the use of all programs and provide for the scheduling of the execution of programs; however positions matching this definition may develop a "total package which includes not only writing programs to process data but also selecting the computer equipment and system software required;

f. employees who have significant responsibility for the management or supervision of workers (e.g., systems analysts) whose positions are not covered in this definition; or employees with significant responsibility for other functions such as computer operations, data entry, system software, etc.; and

g. positions not requiring: 1) three years of administrative, technical or substantive clerical experience; 2) a bachelor's degree in any field; or 3) any equivalent combination of experience and education yielding basic skills in problem analysis and communication.

Positions are classified into levels based on the following definitions.

Computer Programmer I 2901

At this trainee level, assignments are usually planned to develop basic programming skills because incumbents are typically inexperienced in applying such skills on the job. Assists higher level staff by performing elementary programming tasks which concern limited and simple data items and steps which closely follow patterns of previous work done in the organization, e.g., drawing flow charts, writing operator instructions, or coding and testing routines to accumulate counts, tallies, or summaries. May perform routine programming assignments (as described in level II) under close supervision.

In addition, as training and to assist higher level staff, may perform elementary fact finding concerning a specified work process, e.g., a file of clerical records which is treated as a unit (invoices, requisitions, or purchase orders, etc.); reports findings to higher level staff.

Receives classroom and/or on-the-job training in computer programming concepts, methods, and techniques and in the basic requirements of the subject matter area. May receive training in elementary fact-finding. Detailed, step-by-step instructions are given for each task and any deviation must be authorized by a supervisor. Work is closely monitored in progress and reviewed in detail upon completion.

Computer Programmer II 2902

At this level, initial assignments are designed to develop competence in applying established programming procedures to routine problems. Performs routine programming assignments that do not require skilled background experience but do require knowledge of established programming procedures and data processing requirements. Works according to clear-cut and complete specifications. The data are refined and the format of the final product is very similar to that of the input or is well defined when significantly different, i.e., there are few, if any, problems with interrelating varied records and outputs.

Maintains and modifies routine programs. Makes approved changes by amending program flow charts, developing detailed processing logic, and coding changes. Tests and documents modifications and writes operator instructions. May write routine new programs using prescribed specifications; may confer with EDP personnel to clarify procedures, processing logic, etc.

In addition, and as continued training, may evaluate simple interrelationships in the immediate programming area, e.g., whether a contemplated change in one part of a simple program would cause unwanted results in a related part; confers with user representatives to gain an understanding of the situation sufficient to formulate the needed change; and implements the change upon approval of the supervisor or higher level staff. The incumbent is provided with charts, narrative descriptions of the functions performed, an approved statement of the product desired (e.g., a change in a local establishment report), and the inputs, outputs, and record formats.

Reviews objectives and assignment details with higher level staff to insure thorough understanding; uses judgment in selecting among authorized procedures and seeks assistance when guidelines are inadequate, significant deviations are proposed, or when unanticipated problems arise. Work is usually monitored in progress; all work is reviewed upon completion for accuracy and compliance with standards.

Computer Programmer III 2903

As a fully qualified computer programmer, applies standard programming procedures and detailed knowledge of pertinent subject matter (e.g., work processes, governing rules, clerical procedures, etc.) in a programming area such as: a recordkeeping operation (supply, personnel and payroll, inventory, purchasing, insurance payments, depositor accounts, etc.); a well-defined statistical or scientific problem; or other standardized operation or problem. Works according to approved statements of requirements and detailed specifications. While the data are clear cut, related, and equally available, there may be substantial interrelationships of a variety of records and several varied sequences of formats are usually produced. The programs developed or modified typically are linked to several other programs in that the output of one becomes the input for another. Recognizes probable interactions of other related programs with the assigned program(s) and is familiar with related system software and computer equipment. Solves conventional programming problems. (In small organizations, may maintain programs which concern or combine several operations, i.e., users, or develop programs where there is one primary user and the others give input.)

Performs such duties as: develops, modifies, and maintains assigned programs; designs and implements modifications to the interrelation of files and records within programs in consultation with higher level staff; monitors the operation of assigned programs and responds to problems by diagnosing and correcting errors in logic and coding; and implements and/or maintains assigned portions of a scientific programming project, applying established scientific programming techniques to well-defined mathematical, statistical, engineering, or other scientific problems usually requiring the translation of mathematical notation into processing logic and code. (Scientific programming includes assignments such as: using predetermined physical laws expressed in mathematical terms to relate one set of data to another; the routine storage and retrieval of field test data; and using procedures for real-time command and control, scientific data reduction, signal processing, or similar areas.) Tests and documents work and writes and maintains operator instructions for assigned programs. Confers with other EDP personnel to obtain or provide factual data.

In addition, may carry out fact-finding and programming analysis of a single activity or routine problem, applying established procedures where the nature of the program, feasibility, computer equipment, and programming language have already been decided. May analyze present performance of the program and take action to correct deficiencies based on discussion with the user and consultation with and approval of the supervisor or higher level staff. May assist in the review and analysis of detailed program specifications and in program design to meet changes in work processes.

Works independently under specified objectives; applies judgment in devising program logic and in selecting and adapting standard programming procedures; resolves problems and deviations according to established practices; and obtains advice where precedents are unclear or not available. Completed work is reviewed for conformance to standards, timeliness, and efficiency. May guide or instruct lower level programmers; may supervise technicians and others who assist in specific assignments.

OR

Works on complex programs (as described in level IV) under close direction of higher level staff or supervisor. May assist higher level staff by independently performing moderately complex tasks assigned, and performing complex tasks under close supervision.

Computer Programmer IV 2904

Applies expertise in programming procedures to complex programs; recommends the redesign of programs, investigates and analyzes feasibility and program requirements, and develops programming specifications. Assigned programs typically affect a broad multi-user computer system which meets the data processing needs of a broad area (e.g., manufacturing, logistics planning, finance management, human resources, or material management) or a computer system for a project in engineering, research, accounting, statistics, etc. Plans the full range of programming actions to produce several interrelated but different products from numerous and diverse data elements which are usually from different sources; solves difficult programming problems. Uses knowledge of pertinent system software, computer equipment, work processes, regulations, and management practices.

Performs such duties as: develops, modifies, and maintains complex programs; designs and implements the interrelations of files and records within programs which will effectively fit into the overall design of the project; working with problems or concepts, develops programs for the solution to major scientific computational problems requiring the analysis and development of logical or mathematic descriptions of functions to be programmed; and develops occasional special programs, e.g., a critical path analysis program to assist in managing a special project. Tests, documents, and writes operating instructions for all work. Confers with other EDP personnel to secure information, investigate and resolve problems and coordinate work efforts.

In addition, performs such programming analysis as: investigating the feasibility of alternate program design approaches to determine the best balanced solution, e.g., one that will best satisfy immediate user needs, facilitate subsequent modification, and conserve resources; on typical maintenance projects and smaller scale, limited new projects, assisting user personnel in defining problems or needs and determining work organization, the necessary files and records, and their interrelation with the program; or on large or more complicated projects, participating as a team member along with other EDP personnel and users and having responsibility for a portion of the project.

Works independently under overall objectives and direction, apprising the supervisor about progress and unusual complications. Modifies and adapts precedent solutions and proven approaches. Guidelines include constraints imposed by the related programs with which the incumbent's programs must be meshed. Completed work is reviewed for timeliness, compatibility with other work, and effectiveness in meeting requirements. May function as team leader or supervise a few lower level programmers or technicians on assigned work.

Computer Programmer V 2905

At level V, workers are typically either supervisors, team leaders, staff specialists or consultants. Some programming analysis is included as a part of the programming assignment. Supervision and review are similar to level IV.

Typical Duties and Responsibilities include one or more of the following:

1. In a supervisory capacity, plans, develops, coordinates, and directs a large and important programming project (finance, manufacturing, sales/marketing, human resources, or other broad area) or a number of small programming projects with complex features. A substantial portion of the work supervised (usually 2 to 3 workers) is comparable to that described for level IV. Supervises, coordinates, and reviews the work of a small staff, normally not more than 15 programmers and technicians; estimates personnel needs and schedules, assigns and reviews work to meet completion date. These day-to-day supervisors evaluate performance, resolve complaints and make recommendations on hiring and firing. They do not make final decisions on curtailing projects, reorganizing, or reallocating resources.

2. As team leader, staff specialist or consultant, defines complex scientific problems (e.g., computational) or other highly complex programming problems (e.g., generating overall forecasts, projections, or other new data fields widely different from the source data or untried at the scale proposed) and directs the development of computer programs for their solution; or designs improvements in complex programs where existing precedents provide little guidance, such as an interrelated group of mathematical/statistical programs which support health insurance, natural resources, marketing trends, or other research activities. In conjunction with users (scientists or specialists), defines major problems in the subject-matter area. Contacts co-workers and user personnel at various locations to plan and coordinate project and gather data; devises ways to obtain data not previously available; arbitrates differences between various program users when conflicting requirements arise. May perform simulation studies to determine effects of changes in computer equipment or system software or may assess the feasibility and soundness of proposed programming projects which are novel and complex. Typically develops programming techniques and procedures where few precedents exist. May be assisted on projects by other programmers or technicians.

Not classifiable by level 2909

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

COMPUTER SYSTEMS ANALYST

Analyzes business or scientific problems for resolution through electronic data processing. Gathers information from users, defines work problems, and, if feasible, designs a system of computer programs and procedures to resolve the problems. Develops complete specifications to enable computer programmers to prepare required programs: analyzes subject-matter operations to be automated; specifies number and types of records, files, and documents to be used and outputs to be produced; prepares work diagrams and data flow charts; coordinates tests of the system and participates in trial runs of new and revised systems; and recommends computer equipment changes to obtain more effective operations. May also write the computer programs.

Excluded are:

a. trainees who receive detailed directives and work plans, select authorized procedures for use in specific situations, and seek assistance for deviations and problems;

b. positions which require a bachelor's degree in a specific scientific field (other than computer science), such as an engineering, mathematics, physics, or chemistry degree; however, positions are potential matches where the required degree may be from any of several possible scientific fields;

c. computer programmers who write computer programs and solve user problems not requiring systems modification;

d. workers who primarily analyze and evaluate problems concerning computer equipment or its selection or utilization; and

e. computer systems programmers or analysts who primarily write programs or analyze problems concerning the system software, e.g., operating systems, compilers, assemblers, system utility routines, etc., which provide basic services for the use of all programs and provide for the scheduling or the execution of programs; however, positions matching this definition may develop a "total package" which includes not only analyzing work problems to be processed but also selecting the computer equipment and system software required.

Positions are classified into levels on the basis of the following definitions.

Computer Systems Analyst I 2911

At this level, initial assignments are designed to expand practical experience in applying systems analysis techniques and procedures. Provides several phases of the required systems analysis where the nature of the system is predetermined. Uses established fact finding approaches, knowledge of pertinent work processes and procedures, and familiarity with related computer programming practices, system software, and computer equipment.

Carries out fact finding and analysis as assigned, usually of a single activity or a routine problem; applies established procedures where the nature of the system, feasibility, computer equipment and programming language have already been decided; may assist a higher level systems analyst by preparing the detailed specifications required by computer programmers from information developed by the higher level analyst; may research routine user problems and solve them by modifying the existing system when the solutions follow clear precedents. When cost and deadline estimates are required, results receive close review.

The supervisor defines objectives, priorities, and deadlines. Incumbents work independently; adapt guides to specific situations; resolve problems and deviations according to established practices; and obtain advice where precedents are unclear or not available. Completed work is reviewed for conformance to requirements, timeliness, and efficiency. May supervise technicians and others who assist in specific assignments.

Computer Systems Analyst II 2912

Applies systems analysis and design skills in an area such as a recordkeeping or scientific operation. A system of several varied sequences or formats is usually developed, e.g., develops systems for maintaining depositor accounts in a bank, maintaining accounts receivable in a retail establishment, maintaining inventory accounts in a manufacturing or wholesale establishment, or processing a limited problem in a scientific project. Requires competence in most phases of system analysis and knowledge of pertinent system software and computer equipment and of the work processes, applicable regulations, work load, and practices of the assigned subject-matter area. Recognizes probable interactions of related computer systems and predicts impact of a change in assigned system.

Reviews proposals which consist of objectives, scope, and user expectations; gathers facts, analyzes data, and prepares a project synopsis which compares alternatives in terms of cost, time, availability of equipment and personnel, and recommends a course of action; and upon approval of synopsis, prepares specifications for development of computer programs. Determines and resolves data processing problems and coordinates the work with program, users, etc.; orients user personnel on new or changed procedures. May conduct special projects such as data element and code standardization throughout a broad system, working under specific objectives and bringing to the attention of the supervisor any unusual problems or controversies.

Works independently under overall project objectives and requirements; apprises supervisor about progress and unusual complications. Guidelines usually include existing systems and the constraints imposed by related systems with which the incumbent's work must be meshed. Adapts design approaches successfully used in precedent systems. Completed work is reviewed for timeliness, compatibility with other work, and effectiveness in meeting requirements. May provide functional direction to lower level assistants on assigned work.

OR

Works on a segment of a complex data processing scheme or broad system, as described for computer systems analyst, level III. Works independently on routine assignments and receives instructions and guidance on complex assignments. Work is reviewed for accuracy of judgment, compliance with instructions, and to insure proper alignment with the overall system.

Computer Systems Analyst III 2913

Applies systems analysis and design techniques to complex computer systems in a broad area such as manufacturing; finance management; engineering, accounting, or statistics; logistics planning; material management, etc. Usually, there are multiple users of the system, however, there may be complex one-user systems, e.g., for engineering or research projects. Requires competence in all phases of systems analysis techniques, concepts, and methods and knowledge of available system software, computer equipment, and the regulations, structure, techniques, and management practices of one or more subject-matter areas. Since input data usually come from diverse sources, is responsible for recognizing probable conflicts and integrating diverse data elements and sources. Produces innovative solutions for a variety of complex problems.

Maintains and modifies complex systems or develops new subsystems such as an integrated production scheduling, inventory control, cost analysis, or sales analysis record in which every item of each type is automatically processed through the full system of records. Guides users in formulating requirements; advises on alternatives and on the implications of new or revised data processing systems; analyzes resulting user project proposals, identifies omissions and errors in requirements, and conducts feasibility studies; recommends optimum approach and develops system design for approved projects. Interprets information and informally arbitrates between system users when conflicts exist. May serve as lead analyst in a design subgroup, directing and integrating the work of one or two lower level analysts, each responsible for several programs.

Supervision and nature of review are similar to level II; existing systems provide precedents for the operation of new subsystems.

Computer Systems Analyst IV 2914

Applies expert systems analysis and design techniques to complex system development in a specialized design area and/or resolves unique or unyielding problems in existing complex systems by applying new technology. Work requires a broad knowledge of data sources and flow, interactions of existing complex systems in the organization, and the capabilities and limitations of the systems software and computer equipment. Objectives and overall requirements are defined in the organization's EDP policies and standards; the primary constraints typically are those imposed by the need for compatibility with existing systems or processes. Supervision and nature of review are similar to levels II and III.

Typical Duties and Responsibilities include one or more of the following:

1. As team or project leader, provides systems design in a specialized and highly complex design area, e.g., interrelated business statistics and/or projections, scientific systems, mathematical models, or similar unprecedented computer systems. Establishes the framework of new computer systems from feasibility studies to post-implementation evaluation. Devises new sources of data and develops new approaches and techniques for use by others. May serve as technical authority for a design area. At least one or two team members perform work at level III; one or two team members may also perform work as a level IV staff specialist or consultant as described below.

2. As staff specialist or consultant, with expertise in a specialty area (e.g., data security, telecommunications, systems analysis techniques, EDP standards development, etc.), plans and conducts analyses of unique or unyielding problems in a broad system. Identifies problems and specific issues in assigned area and prepares overall project recommendations from an EDP standpoint including feasible advancements in EDP technology; upon acceptance, determines a design strategy that anticipates directions of change; designs and monitors necessary testing and implementation plans. Performs work such as: studies broad areas of projected work processes which cut across the organization's established EDP systems; conducts continuing review of computer technological developments applicable to system design and prepares long range forecasts; develops EDP standards where new and improved approaches are needed; or develops recommendations for a management information system where new concepts are required.

Computer Systems Analyst V 2915

As a top technical expert, develops broad unprecedented computer systems and/or conducts critical studies central to the success of large organizations having extensive technical or highly diversified computer requirements. Considers such requirements as broad organization policy, and the diverse user needs of several organizational levels and locations. Works under general administrative direction.

Typical Duties and Responsibilities include one or more of the following:

1. As team or project leader, guides the development of broad unprecedented computer systems. The information requirements are complex and voluminous. Devises completely new ways to locate and develop data sources; establishes new factors and criteria for making subject-matter decisions. Coordinates fact finding, analysis, and design of the system and applies the most recent developments in data processing technology and computer equipment. Guidelines consist of state-of-the-art technology and general organizational policy. At least one team member performs work at level IV.

2. As staff specialist or consultant, is a recognized leader and authority in a large organization (as defined above). Performs at least two of the following: a) has overall responsibility for evaluating the significance of technological advancement and developing EDP standards where new and improved approaches are needed, e.g., programming techniques; b) conceives and plans exploratory investigations critical to the overall organization where useful precedents do not exist and new concepts are required, e.g., develops recommendations regarding a comprehensive management information system; or c) evaluates existing EDP organizational policy for effectiveness, devising and formulating changes in the organization's position on broad policy issues. May be assisted on individual projects by other analysts.

Not classifiable by level 2919

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

COMPUTER SYSTEMS ANALYST SUPERVISOR/MANAGER

Supervises three or more employees, two of whom perform systems analysis. Work requires substantial and recurring use of systems analysis skills in directing staff. May also supervise programmers and related clerical and technical support personnel.

Excluded are:

a. positions also having significant responsibility for the management or supervision of functional areas (e.g., system software development, data entry, or computer operations) not related to the Computer Systems Analyst and Computer Programmer definitions;

b. supervisory positions having base levels below Computer Systems Analyst II or Computer Programmer IV; and

c. managers who supervise two or more subordinates performing at Computer Systems Analyst Supervisor/Manager level IV.

Classification by Level

Supervisory jobs are matched at one of four levels according to two factors: a) base level of work supervised; and b) level of supervision. The table following the explanations of these factors indicates the level of the supervisor for each combination of factors.

BASE LEVEL OF WORK

The base level of work is the highest level of nonsupervisory work under the direct or indirect supervision of the supervisor/manager which (when added to the nonsupervisory levels above it) represents at least 25 percent of the total nonsupervisory, nonclerical staff and at least two of the full-time positions supervised.

To determine the base level of nonsupervisory, nonclerical work: 1) array the positions by level of difficulty; 2) determine the number of workers in each position; and 3) count down from the highest level (if necessary) until at least 25 percent of the total nonsupervisory, nonclerical staff are represented.

LEVEL OF SUPERVISION

Supervisors and managers should be matched at one of the three LS levels below which best describes their supervisory responsibility.

LS-1 Plans, coordinates, and evaluates the work of a small staff, normally not more than 15 programmers, systems analysts, and technicians; estimates personnel needs and schedules, assigns, and reviews work to meet completion date; interviews candidates for own unit and recommends hires, promotions, or reassignments; resolves complaints and refers group grievances and more serious unresolved complaints to higher level supervisors; may reprimand employees.

LS-2 Directs a sizable staff (normally 15-30 employees), typically divided into subunits controlled by subordinate supervisors; advises higher level management on work problems of own unit and the impact on broader programs; collaborates with heads of other units to negotiate and/or coordinate work changes; makes decisions on work or training problems presented by subordinate supervisors; evaluates subordinate supervisors and reviews their evaluations of other employees; selects nonsupervisors (higher level approval is virtually assured) and recommends supervisory selections; hears group grievances and serious or unresolved complaints. May shift resources among projects and perform long range budget planning.

Note: In rare instances, supervisory positions responsible for directing a sizable staff (e.g., 20-30 employees) may not have subordinate supervisors, but have all other LS-2 responsibilities. Such positions should be matched to LS-2.

LS-3 Directs 2 subordinate supervisory levels and the work force managed typically includes substantially more than 30 employees. Makes major decisions and recommendations (listed below) which have a direct, important, and substantial effect on own organization and work. Performs at least three of the following:

- decides what programs and projects should be initiated, dropped, expanded, or curtailed;

- determines long range plans in response to program changes, evaluates program goals, and redefines objectives;

- determines changes to be made in organizational structure, delegation of authority, coordination of units, etc.;

- decides what compromises to make in operations in view of public relations implications and need for support from various groups;

- decides on the means to substantially reduce operating costs without impairing overall operations; justifies major equipment expenditures; and

- resolves differences between key subordinate officials; decides, or significantly affects final decisions, on personnel actions for supervisors and other key officials.

CRITERIA FOR MATCHING COMPUTER SYSTEMS ANALYST SUPERVISORS/MANAGERS

Base Level of Nonsupervisory Job(s)		Level of Supervision		
Matched in the Computer Programmer Definition	Matched in the Computer System Analyst Definition	LS-1	LS-2	LS-3
IV	II	I (2921)	II (2922)	III (2923)
V	III	II (2922)	III (2923)	IV (2924)
-	IV	III (2923)	IV (2924)	Exclude
-	V	IV (2924)	Exclude	Exclude

Not classifiable by level 2929

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

CHEMIST

Performs professional work in research, development, interpretation, and analysis to determine the composition, molecular structure, and properties of substances; to develop or investigate new materials and processes; and to investigate the transformation which substances undergo. Work typically requires a B.S. degree in chemistry or, in rare instances, equivalent experience and education combined.

Chemist I 1701

General characteristics. At this beginning professional level, performs assignments designed to develop professional capabilities and to provide experience in applying the knowledge of chemistry to the job. May also receive formal classroom or seminar-type training. (Terminal positions are excluded.)

Direction received. Works under close supervision. Receives specific and detailed instructions as to required tasks and results expected. Work is checked during progress, and is reviewed for accuracy upon completion.

Typical duties and responsibilities. Performs a variety of routine tasks that are planned to provide experience and familiarization with the chemistry staff, methods, practices, and programs of the employer. The work includes a variety of routine qualitative and quantitative analyses; physical tests to determine properties such as viscosity, tensile strength, and melting point; and assisting more experienced chemists to gain additional knowledge through personal observation and discussion.

Responsibility for the direction of others. Usually none.

Chemist II 1702

General characteristics. Performs routine chemical work requiring selection and application of general and specialized methods, techniques, and instruments commonly used in the laboratory, and the ability to carry out instructions when less common or proposed methods or procedures are necessary. Requires work experience acquired in an entry level position, or appropriate graduate level study. For training and developmental purposes, assignments may include work that is typical of a higher level.

Direction received. Supervisor establishes the nature and extent of analysis required, specifies methods and criteria on new type of assignments, and reviews work for thoroughness of application of methods and accuracy of results.

Typical duties and responsibilities. Carries out a wide variety of standardized methods, tests, and procedures. In accordance with specific instructions, may carry out proposed and less common ones. Is expected to detect problems in using standardized procedures because of the condition of the sample, difficulties with the equipment, etc. Recommends modifications of procedures, e.g., extending or curtailing the analysis or using alternate procedures, based on knowledge of the problem and pertinent available literature. Conducts specified phases of research projects as an assistant to an experienced chemist.

Responsibility for the direction of others. May be assisted by a few aids or technicians.

Chemist III 1703

General characteristics. Performs a broad range of chemical tests and procedures utilized in the laboratory, using judgment in the independent evaluation, selection, and adaptation of standard methods and techniques. May carry through a complete series of tests on a product in its different process stages. Some assignments require a specialized knowledge of one or two common categories of related substances. Performance at this level requires developmental experience in a professional position, or equivalent graduate level education.

Direction received. On routine work, supervision is very general. Assistance is furnished on unusual problems and work is reviewed for application of sound professional judgment.

Typical duties and responsibilities. In accordance with instructions as to the nature of the problem, selects standard methods, tests, or procedures; when necessary, develops or works out alternate or modified methods with supervisor's concurrence. Assists in research by analyzing samples or testing new procedures that require specialized training because a) standard methods are inapplicable, b) analytical findings must be interpreted in terms of compliance or noncompliance with standards, or c) specialized and advanced equipment and techniques must be adapted.

Responsibility for the direction of others. May supervise or coordinate the work of a few technicians or aids, and be assisted by lower level chemists.

Chemist IV 1704

General characteristics. As a fully competent chemist in all conventional aspects of the subject matter or the functional area of the assignments, plans and conducts work requiring a) mastery of specialized techniques or ingenuity in selecting and evaluating approaches to unforeseen or novel problems, and b) ability to apply a research approach to the solution of a wide variety of problems and to assimilate the details and significance of chemical and physical analyses, procedures, and tests. Requires sufficient professional experience to assure competence as a fully trained worker; or, for positions primarily of a research nature, completion of all requirements for a doctoral degree may be substituted for experience.

Direction received. Independently performs most assignments with instructions as to the general results expected. Receives technical guidance on unusual or complex problems and supervisory approval on proposed plans for projects.

Typical duties and responsibilities. Conducts laboratory assignments requiring the determination and evaluation of alternative procedures and the sequence of performing them. Performs complex, exacting, or unusual analytical assignments requiring specialized knowledge of techniques or products. Interprets results, prepares reports, and may provide technical advice in specialized area.

Responsibility for the direction of others. May supervise a small staff of chemists and technicians.

Chemist V 1705

General characteristics. Participates in planning laboratory programs on the basis of specialized knowledge of problems and methods and probable value of results. May serve as an expert in a narrow specialty (e.g., class of chemical compounds, or a class of products), making recommendations and conclusions which serve as the basis for undertaking or rejecting important projects. Development of the knowledge and expertise required for this level of work usually reflects progressive experience through chemist IV.

Direction received. Supervision and guidance relates largely to overall objectives, critical issues, new concepts, and policy matters. Consults with supervisor concerning unusual problems and developments.

Typical duties and responsibilities include one or both of the following:

1. In a supervisory capacity, plans, organizes, and directs assigned laboratory programs. Independently defines scope and critical elements of the projects and selects approaches to be taken. A substantial portion of the work supervised is comparable to that described for chemist IV.

2. As individual researcher or worker, carries out projects requiring development of new or highly modified scientific techniques and procedures, extensive knowledge of specialty, and knowledge of related scientific fields.

Responsibility for the direction of others. Supervises, coordinates, and reviews the work of a small staff of chemists and technicians engaged in varied research and development projects, or a larger group performing routine analytical work. Estimates personnel needs and schedules and assigns work to meet completion date. Or, as individual researcher or worker, may be assisted on projects by other chemists or technicians.

Chemist VI 1706

General characteristics. Performs work requiring leadership and expert knowledge in a specialized field, product, or process. Formulates and conducts a systematic attack on a problem area of considerable scope and complexity which must be approached through a series of complete and conceptually related studies, or a number of projects of lesser scope. The problems are complex because they are difficult to define and require unconventional or novel approaches or have other difficult features. Maintains liaison with individuals and units within and outside the organization with responsibility for acting independently on technical matters pertaining to the field. Work at this level usually requires extensive progressive experience including work comparable to Chemist V.

Direction received. Supervision received is essentially administrative, with assignments given in terms of broad general objectives and limits.

Typical duties and responsibilities include one or both of the following:

1. In a supervisory capacity, a) plans, develops, coordinates, and directs a number of large and important projects or a project of major scope and importance, or b) is responsible for the entire chemical program of a company, or government agency when the program is of limited complexity and scope. Activities supervised are of such a scope that they require a few (3 to 5) subordinate supervisors or team leaders with at least one in a position comparable to level V.

2. As individual researcher or worker, determines, conceives, plans, and conducts projects of major importance to the employer. Applies a high degree of originality and ingenuity in adapting techniques into original combinations and configurations. As a specialist, may serve as a consultant to other chemists.

Responsibility for the direction of others. Plans, organizes, and supervises the work of a staff of chemists and technicians. Evaluates progress of the staff and results obtained, and recommends major changes to achieve overall objectives. Or, as individual worker or researcher, may be assisted on individual projects by other chemists or technicians.

Chemists VII 1707

General characteristics. Makes decisions and recommendations that are recognized as authoritative and have an important impact on extensive chemical activities. Initiates and maintains extensive contacts with key chemists and officials of other organizations requiring skill in persuasion and negotiation of critical issues. At this level, individuals will have demonstrated creativity, foresight, and mature judgment in anticipating and solving unprecedented chemical problems, determining program objectives and requirements, organizing programs and projects, and developing standards and guides for diverse chemical activities.

Direction received. Receives general administrative direction.

Typical duties and responsibilities include one or both of the following:

1. In supervisory capacity, is responsible for a) an important segment of a chemical program of a company or government agency with extensive and diversified scientific requirements, or b) the entire chemical program of a company or agency where the program is more limited in scope.

   The overall chemical program contains critical problems the solution of which requires major technological advances and opens the way for extensive related development. Makes authoritative technical recommendations concerning the scientific objectives and levels of work which will be most profitable in the light of program requirements and scientific and industrial trends and developments. Recommends facilities, personnel, and funds required.

2. As individual researcher and consultant, selects problems for research to further program objectives. Conceives and plans investigations in which the phenomena and principles are not adequately understood, and where few or contradictory scientific precedents or results are available for reference. Outstanding creativity and mature judgment are required to devise hypotheses and techniques of experimentation and to interpret results. As a leader and authority in a broad area of specialization, or in a narrow but intensely specialized one, advises the head of a large laboratory, or officials of the organization on complex aspects of extremely broad and important programs. Has responsibility for exploring, evaluating, and justifying proposed and current programs and projects and furnishing advice on unusually complex and novel problems in the specialty field. Typically will have contributed innovations (e.g., techniques, products, procedures) which are regarded as significant advances in the field.

Responsibility for the direction of others. Directs several subordinate supervisors or team leaders, some of whom are in positions comparable to Chemist VI; or, as individual researcher and consultant, may be assisted on individual projects by other chemists and technicians.

Chemist VIII 1708

General characteristics. Makes decisions and recommendations that are authoritative and have a far-reaching impact on extensive chemical and related activities of the company or government agency. Negotiates critical and controversial issues with top level chemists and officers of other organizations. Individuals at this level have demonstrated a high degree of creativity, foresight, and mature judgment in planning, organizing, and guiding extensive chemical programs and activities of outstanding novelty and importance.

Direction received. Receives general administrative direction.

Typical duties and responsibilities include one or both of the following:

1. In a supervisory capacity, is responsible for a) the entire chemical program of a company or government agency which is of moderate scope, or b) an important segment of a chemical program of a company or agency with very extensive and highly diversified scientific requirements, where programs are of such complexity and scope that they are of critical importance to overall operations and include problems of extraordinary difficulty that have resisted solution. Decides the kind and extent of chemical programs needed to accomplish company or agency objectives, chooses scientific approaches, plans and organizes facilities and programs, and interprets results.

2. As individual researcher and consultant formulates and guides the attack on problems of exceptional difficulty and marked importance to the company, industry, or government. Problems are characterized by the lack of scientific precedents and source material, or the lack of success of prior research and analysis so that their solution would represent an advance of great significance and importance. Performs advisory and consulting services as a recognized authority for broad program areas of considerable novelty and importance. Has made contributions such as new products or techniques, development of processes, etc., which are regarded as major advances in the field.

Responsibility for the direction of others. Supervises several subordinate supervisors or team leaders some of whose positions are comparable to chemist VII, or individual researchers some of whose positions are comparable to chemist VII and sometimes chemist VIII. As an individual researcher and consultant, may be assisted on individual projects by other chemists or technicians.

Note: Individuals in charge of a chemical program may match any of several of the survey job levels, depending on the program's size and complexity. Excluded from the definitions are: 1) chemists in charge of programs so extensive and complex (e.g., consisting of highly diversified or unusually novel products and procedures) that one or more subordinate supervisory chemists are performing at level VIII; 2) individuals whose decisions have direct and substantial effect on setting policy for the organization (included, however, are supervisors deciding the "kind and extent of chemical programs" within broad guidelines set at higher levels); and 3) individual researchers and consultants who are recognized as national and/or international authorities and scientific leaders in very broad areas of scientific interest and investigation.

Not classifiable by level 1709

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

ENGINEER

Performs professional work in research, development, design, testing, analysis, production, construction, maintenance, operation, planning, survey, estimating, application, or standardization of engineering facilities, systems, structures, processes, equipment, devices, or materials, requiring knowledge of the science and art by which materials, natural resources, and power are made useful. Work typically requires a B.S. degree in engineering or, in rare instances, equivalent education and experience combined. (Excluded are: safety engineers, industrial engineers, quality control engineers, sales engineers, and engineers whose primary responsibility is to be in charge of nonprofessional maintenance work.)

Engineer I 1711

General characteristics. At this beginning professional level, performs assignments designed to develop professional work knowledge and abilities. May also receive formal classroom or seminar-type training. (Terminal positions are excluded.)

Direction received. Works under close supervision. Receives specific and detailed instructions as to required tasks and results expected. Work is checked during progress and is reviewed for accuracy upon completion.

Typical duties and responsibilities. Performs a variety of routine tasks that are planned to provide experience and familiarization with the engineering staff, methods, practices, and programs of the employer.

Responsibility for the direction of others. Usually none.

Engineer II 1712

General characteristics. Performs routine engineering work requiring application of standard techniques, procedures, and criteria in carrying out a sequence of related engineering tasks. Limited exercise of judgment is required on details of work and in making preliminary selections and adaptations of engineering alternatives. Requires work experience acquired in an entry level position, or appropriate graduate level study. For training and developmental purposes, assignments may include some work that is typical of a higher level.

Direction received. Supervisor screens assignments for unusual or difficult problems and selects techniques and procedures to be applied on non-routine work. Receives close supervision on new aspects of assignments.

Typical duties and responsibilities. Using prescribed methods, performs specific and limited portions of a broader assignment of an experienced engineer. Applies standard practices and techniques in specific situations, adjusts and correlates data, recognizes discrepancies in results, and follows operations through a series of related detailed steps or processes.

Responsibility for the direction of others. May be assisted by a few aids or technicians.

Engineer III 1713

General characteristics. Independently evaluates, selects. and applies standard engineering techniques, procedures, and criteria, using judgment in making minor adaptations and modifications. Assignments have clear and specified objectives and require the investigation of a limited number of variables. Performance at this level requires developmental experience in a professional position, or equivalent graduate level education.

Direction received. Receives instructions on specific assignment objectives, complex features, and possible solutions. Assistance is furnished on unusual problems and work is reviewed for application of sound professional judgment.

Typical duties and responsibilities. Performs work which involves conventional types of plans, investigations, surveys, structures, or equipment with relatively few complex features for which there are precedents. Assignments usually include one or more of the following: equipment design and development, test of materials, preparation of specifications, process study, research investigations, report preparation, and other activities of limited scope requiring knowledge of principles and techniques commonly employed in the specific narrow area of assignments.

Responsibility for the direction of others. May supervise or coordinate the work of drafters, technicians, and others who assist in specific assignments.

Engineer IV 1714

General characteristics. As a fully competent engineer in all conventional aspects of the subject matter or the functional area of the assignments, plans and conducts work requiring judgment in the independent evaluation, selection, and substantial adaptation and modification of standard techniques, procedures, and criteria. Devises new approaches to problems encountered. Requires sufficient professional experience to assure competence as a fully trained worker; or, for positions primarily of a research nature, completion of all requirements for a doctoral degree may be substituted for experience.

Direction received. Independently performs most assignments with instructions as to the general results expected. Receives technical guidance on unusual or complex problems and supervisory approval on proposed plans for projects.

Typical duties and responsibilities. Plans, schedules, conducts, or coordinates detailed phases of the engineering work in a part of a major project or in a total project of moderate scope. Performs work which involves conventional engineering practice but may include a variety of complex features such as conflicting design requirements, unsuitability of standard materials, and difficult coordination requirements. Work requires a broad knowledge of precedents in the specialty area and a good knowledge of principles and practices of related specialties.

Responsibility for the direction of others. May supervise a few engineers or technicians on assigned work.

Engineer V 1715

General characteristics. Applies intensive and diversified knowledge of engineering principles and practices in broad areas of assignments and related fields. Makes decisions independently on engineering problems and methods and represents the organization in conferences to resolve important questions and to plan and coordinate work. Requires the use of advanced techniques and the modification and extension of theories, precepts, and practices of the field and related sciences and disciplines. The knowledge and expertise required for this level of work usually result from progressive experience, including work comparable to engineer IV.

Direction received. Supervision and guidance relate largely to overall objectives, critical issues, new concepts, and policy matters. Consults with supervisor concerning unusual problems and developments.

Typical duties and responsibilities include one or more of the following:

1. In a supervisory capacity, plans, develops, coordinates, and directs a large and important engineering project or a number of small projects with many complex features. A substantial portion of the work supervised is comparable to that described for engineer IV.

2. As individual researcher or worker, carries out complex or novel assignments requiring the development of new or improved techniques and procedures. Work is expected to result in the development of new or refined equipment, materials, processes, products, and/or scientific methods.

3. As staff specialist, develops and evaluates plans and criteria for a variety of projects and activities to be carried out by others. Assesses the feasibility and soundness of proposed engineering evaluation tests, products, or equipment when necessary data are insufficient or confirmation by testing is advisable. Usually performs as a staff advisor and consultant in a technical specialty, a type of facility or equipment, or a program function.

Responsibility for the direction of others. Supervises, coordinates, and reviews the work of a small staff of engineers and technicians; estimates personnel needs and schedules and assigns work to meet completion date. Or, as individual researcher or staff specialist, may be assisted on projects by other engineers or technicians.

Engineer VI 1716

General characteristics. Has full technical responsibility for interpreting, organizing, executing, and coordinating assignments. Plans and develops engineering projects concerned with unique or controversial problems which have an important effect on major programs. This involves exploration of subject area, definition of scope and selection of problems for investigation, and development of novel concepts and approaches. Maintains liaison with individuals and units within or outside the organization with responsibility for acting independently on technical matters pertaining to the field. Work at this level usually requires extensive progressive experience including work comparable to engineer V.

Direction received. Supervision received is essentially administrative, with assignments given in terms of broad general objectives and limits.

Typical duties and responsibilities include one or more of the following:

1. In a supervisory capacity, a) plans, develops, coordinates, and directs a number of large and important projects or a project of major scope and importance, or b) is responsible for the entire engineering program of a company or government agency when the program is of limited complexity and scope. Extent of responsibilities generally requires a few (3 to 5) subordinate supervisors or team leaders with at least one in a position comparable to level V.

2. As individual researcher or worker, conceives, plans, and conducts research in problem areas of considerable scope and complexity. The problems must be approached through a series of complete and conceptually related studies, are difficult to define, require unconventional or novel approaches, and require sophisticated research techniques. Available guides and precedents contain critical gaps, are only partially related to the problem, or may be largely lacking due to the novel character of the project. At this level, the individual researcher generally will have contributed inventions, new designs, or techniques which are of material significance in the solution of important problems.

3. As a staff specialist, serves as the technical specialist for the organization in the application of advanced theories, concepts, principles, and processes for an assigned area of responsibility (i.e., subject matter, function, type of facility or equipment, or product). Keeps abreast of new scientific methods and developments affecting the organization for the purpose of recommending changes in emphasis of programs or new programs warranted by such developments.

Responsibility for the direction of others. Plans, organizes, and supervises the work of a staff of engineers and technicians. Evaluates progress of the staff and results obtained, and recommends major changes to achieve overall objectives. Or, as individual researcher or staff specialist, may be assisted on individual projects by other engineers or technicians.

Engineer VII 1717

General characteristics. Makes decisions and recommendations that are recognized as authoritative and have an important impact on extensive engineering activities. Initiates and maintains extensive contacts with key engineers and officials of other organizations, requiring skill in persuasion and negotiation of critical issues. At this level, individuals will have demonstrated creativity, foresight, and mature engineering judgment in anticipating and solving unprecedented engineering problems, determining program objectives and requirements, organizing programs and projects, and developing standards and guides for diverse engineering activities.

Direction received. Receives general administrative direction.

Typical duties and responsibilities include one or both of the following:

1. In a supervisory capacity, is responsible for a) an important segment of the engineering program of a company or government agency with extensive and diversified engineering requirements, or b) the entire engineering program of a company or agency when it is more limited in scope. The overall engineering program contains critical problems the solution of which requires major technological advances and opens the way for extensive related development.

Extent of responsibilities generally requires several subordinate organizational segments or teams. Recommends facilities, personnel, and funds required to carry out programs which are directly related to and directed toward fulfillment of overall objectives.

2. As individual researcher and consultant, is a recognized leader and authority in the company or government agency in a broad area of specialization or in a narrow but intensely specialized field. Selects research problems to further program objectives. Conceives and plans investigations of broad areas of considerable novelty and importance, for which engineering precedents are lacking in areas critical to the overall engineering program. Is consulted extensively by associates and others, with a high degree of reliance placed on incumbent's scientific interpretations and advice. Typically, will have contributed inventions, new designs or techniques which are regarded as major advances in the field.

Responsibility for the direction of others. Directs several subordinate supervisors or team leaders, some of who are in positions comparable to engineer VI; or as individual researcher and consultant, may be assisted on individual projects by other engineers and technicians.

Engineer VIII

1718

General characteristics. Makes decisions and recommendations that are recognized as authoritative and have a far-reaching impact on extensive engineering and related activities of the company or government agency. Negotiates critical and controversial issues with top level engineers and officers of other organizations. Individuals at this level demonstrate a high degree of creativity, foresight, and mature judgment in planning, organizing, and guiding extensive engineering programs and activities of outstanding novelty and importance.

Direction received. Receives general administrative direction.

Typical duties and responsibilities include one or both of the following:

1. In supervisory capacity, is responsible for a) an important segment of a very extensive and highly diversified engineering program of a company or government agency, or b) the entire engineering program of a company or agency when the program is of moderate scope. The programs are of such complexity and scope that they are of critical importance to overall objectives, include problems of extraordinary difficulty that often have resisted solution, and consist of several segments requiring subordinate supervisors. Decides the kind and extent of engineering and related programs needed to accomplish the objectives of the company or agency, chooses scientific approaches, plans and organizes facilities and programs, and interprets results.

2. As individual researcher and consultant, formulates and guides the attack on problems of exceptional difficulty and marked importance to the company, industry, or government. Problems are characterized by their lack of scientific precedents and source material, or lack of success of prior research and analysis so that their solution would represent an advance of great significance and importance. Performs advisory and consulting work as a recognized authority for broad program areas or in an intensely specialized area of considerable novelty and importance.

Responsibility for the direction of others. Supervises several subordinate supervisors or team leaders, some of whose positions are comparable to engineer VII, or individual researchers some of whose positions are comparable to engineer VII and sometimes engineer VIII. As an individual researcher and consultant may be assisted on individual projects by other engineers or technicians.

Note: Individuals in charge of an engineering program may match any of several of the survey job levels, depending on the program's size and complexity. Excluded from the definition are: 1) engineers in charge of programs so extensive and complex (e.g., consisting of research and development on a variety of complex products or systems with numerous novel components) that one or more subordinate supervisory engineers are performing at level VIII; 2) individuals whose decisions have direct and substantial effect on setting policy for the organization (included, however, are supervisors deciding the "kind and extent of engineering and related programs" within broad guidelines set at higher levels); and 3) individual researchers and consultants who are recognized as national and/or international authorities and scientific leaders in very broad areas of scientific interest and investigation.

Not classifiable by level 1719

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

☞ SCIENTIST

Note: Please confine matching to positions that cannot be matched to the Engineer, Chemist, Computer Programmer, or Computer Systems Analyst definitions.

This generic level guide is to be used for evaluating professional work in one or more of the fields of engineering and science. Work typically requires a B.S. degree in a specialty field of engineering or science, or, in rare instances, equivalent education and experience combined. Positions covered include the following:

Physical Scientist: Work involves the study of matter, energy, physical space, time, nature of physical measurement, and fundamental structural particles; and the nature of the physical environment. Performs work in any of the fields of physical sciences, including chemistry, physics, geophysics, hydrology, metallurgy, astronomy, cartography, geodesy, meteorology, geology, oceanography, space science, meteorology, and land surveying.

Biologist: Work involves the study of living organisms, their distribution, characteristics, life processes, and their adaptations and relations to the environment; the soil, its properties and distribution, and the living organisms growing in or on the soil; and the management, conservation, or utilization of the biological properties for particular purposes. Performs work in any of the fields of biological sciences, including microbiology, ecology, zoology, physiology, entomology, toxicology, genetics, botany, plant pathology and physiology, horticulture, forestry, soil science and conservation, agronomy, animal science, fishery biology, and wildlife biology.

Computer Scientist: Work involves devoloping new methods and techniques to store, manipulate, transform, or present information by means of digital computer systems. Examples of studies undertaken may include: developing criteria for the development of improved electronic computer devices; developing advanced concepts of automation and information processing display, control, and transfer; and researching computational complexity and analyzing algorithms to explore data structures that lead to highly efficient combinatorial algorithms.

Engineer: Work involves performing work in research, development, design, testing, analysis, production, construction, maintenance, operation, planning, survey, estimating, application, or standardization of engineering facilities, systems, structures, processes, equipment, devices, or materials, requiring knowledge of the science and art by which materials, natural resources, and power are made useful. (Excluded are safety engineers, industrial engineers, quality control engineers, sales engineers, and engineers whose primary responsibility is to be in charge of non- professional maintenance work.)

Excluded are:

a. Technicians (e.g., physical science, biology, and chemistry technicians) performing work in support of professional scientists. Typically, these jobs do not require a four-year college degree;

b. Positions requiring a Doctor of Medicine (M.D.) or Doctor of Osteopathy (D.O.) degree; and

c. Positions requiring a degree in one or more of the social or behavioral sciences.

Physical/Biological Scientist I	1721
Computer/Engineering Scientist I	1731
Scientist I (Not Classifiable By Discipline)	1791

General characteristics: At this entry level, performs assignments designed to develop professional knowledge and abilities. Formal classroom/seminar-type training may be provided. (Terminal positions are excluded.)

Direction received: Works under close supervision. Receives detailed instructions on what is required and work is reviewed in progress and upon completion.

Typical duties and responsibilities: Performs a variety of routine tasks that are planned to provide practical work experience and familiarization with the engineering or scientific staff, methods, practices, and programs of the employer.

Responsibility for the direction of others: Usually none.

Physical/Biological Scientist II	1722
Computer/Engineering Scientist II	1732
Scientist II (Not Classifiable By Discipline)	1792

General characteristics: Applies standard methods, techniques, procedures, and criteria to carry out a variety of standardized tests, experiments, or procedures. Following specific instructions, may carry out proposed and less common procedures. Exercises limited judgment to recommend adaptations of procedures, e.g., using alternative methods and extending or curtailing analysis. Work requires experience acquired in an entry level position, or appropriate graduate level study. For developmental purposes, assignments may include some higher level duties.

Direction received: Routine assignments are performed independently and results are reviewed for accuracy. For non-routine work or to resolve difficult problems, the supervisor provides techniques and procedures to be applied. Receives close supervision on new aspects of assignments.

Typical duties and responsibilities: Conducts a variety of common tests, experiments, or procedures; performs specific and limited portions of a broader assignment; or applies standard practices and techniques in specific situations, adjusts and correlates data, recognizes discrepancies in results, and follows operations or tests through a series of related detailed steps or processes.

Responsibility for the direction of others: May be assisted by a few aides or technicians.

Physical/Biological Scientist III	1723
Computer/Engineering Scientist III	1733
Scientist III (Not Classifiable By Discipline)	1793

General characteristics: Performs assignments of fairly limited scope and complexity with increased independence. Implements the fundamental concepts, practices, and procedures of a particular field of specialization. The objectives of the assignments are clearly defined and require the investigation of a limited number of variables. Work requires developmental experience in a professional position, or equivalent graduate level education.

Direction received: Receives instructions on assignment objectives, complex features, and possible solutions. Assistance is furnished on unusual problems, and work is reviewed for application of sound professional judgment.

Typical duties and responsibilities: Performs work which involves conventional types of plans, investigations, surveys, structures, tests, experiments, or equipment. There are precedents for the relatively few complex features present. Examples of work assignments include:

- Performs equipment design and development, test of materials, preparation of specifications, process study, research investigations, report preparation, and other activities of limited scope.

- Performs varied tests, experiments, and procedures, using judgment to evaluate, select, and adapt standard methods and techniques.

- Assists higher level scientist in research by analyzing samples or testing new procedures that require specialized training because (a) standard methods are inapplicable, (b) analytical findings must be interpreted in terms of compliance or noncompliance with standards, or (c) specialized and advanced equipment and techniques must be adapted.

Responsibility for the direction of others: May supervise or coordinate the work of a few technicians or aides, and be assisted by entry level engineers or scientists.

Physical/Biological Scientist IV	1724
Computer/Engineering Scientist IV	1734
Scientist IV (Not Classifiable By Discipline)	1794

General characteristics: As a fully competent engineer or scientist in all conventional aspects of the subject matter or the functional area of the assignments, plans and conducts work requiring judgment in the independent evaluation, selection, and substantial adaptation and modification of standard techniques, procedures, and criteria. Devises new approaches to satisfy unusual or specialized requirements. Requires sufficient professional experience to assure competence as a fully trained worker; or, for positions primarily of a research nature, completion of all requirements for a doctoral degree may be substituted for experience.

Direction received: Independently performs most assignments with instructions as to the general results expected. Refers unusual or complex problems to supervisor, with recommendations. Receives supervisory approval on proposed plans for projects.

Typical duties and responsibilities: Performs the full range of moderately difficult assignments requiring a broad knowledge of precedents in the specialty area and good knowledge of principles and practices of related specialties. Examples of work assignments include:

- Plans, schedules, conducts, or coordinates detailed phases of the engineering work in a part of a major project or in a total project of moderate scope. Applies conventional practices but work may include a variety of complex features such as conflicting design requirements, unsuitability of standard materials, and difficult coordination requirements.

- Conducts research assignments requiring the determination and evaluation of alternative procedures and the sequence of performing them. Performs complex, exacting, or unusual analytical assignments requiring specialized knowledge of techniques or products. Interprets results, prepares reports, and may provide technical advice in specialized area.

Responsibility for the direction of others: May supervise a small staff of engineers, scientists and technicians.

Physical/Biological Scientist V	1725
Computer/Engineering Scientist V	1735
Scientist V (Not Classifiable By Discipline)	1795

General characteristics: Applies intensive and comprehensive knowledge of engineering or scientific principles and practices in broad areas of assignments and related fields. Makes decisions independently on problems and methods and represents the organization in conferences to resolve important issues and to plan and coordinate work. The difficulty of the projects/programs requires the use of advanced techniques and the modification and extension of theories, precepts, and practices of the field and related sciences and disciplines. The knowledge and expertise required for this work usually reflects progressive experience through level IV.

Direction received: Supervision and guidance relate largely to overall objectives, critical issues, new concepts, and policy matters. Consults with supervisor on unusual problems or developments.

Typical duties and responsibilities: Examples of work assignments may include the following:

- As a supervisor, plans, organizes, and directs (a) a large and important engineering or scientific project, or a number of small projects with many complex features, or (b) is responsible for an important research laboratory program. Independently defines scope and critical elements of projects and selects approaches to be taken. A substantial portion of the work supervised is comparable to level IV.

- As an individual researcher, completes complex projects requiring development of new or highly modified engineering or scientific techniques and procedures, extensive knowledge of specialty, and knowledge of related scientific fields. Interprets and evaluates results to determine their validity and scientific significance. Work results in the development of new or refined equipment, materials, processes, products, and/or scientific methods.

- As a staff specialist, develops and evaluates plans and criteria for a variety of projects and activities. Assesses the feasibility and soundness of proposed evaluation tests, products, experiments, or equipment when necessary data are insufficient or confirmation by testing is advisable. Usually performs as a staff advisor or consultant in a technical specialty, a type of facility or equipment, or a program function.

Responsibility for the direction of others: Supervises, coordinates, and reviews the work of a small staff of engineers, scientists, and technicians. Or, as an individual researcher or staff specialist, may be assisted on projects by other engineers, scientists, or technicians.

Physical/Biological Scientist VI	1726
Computer/Engineering Scientist VI	1736
Scientist VI (Not Classifiable By Discipline)	1796

General Characteristics: Has full technical responsibility for interpreting, organizing, executing, and coordinating assignments. Plans and conducts projects concerned with unique or controversial problems requiring unconventional or novel approaches and which have an important effect on major programs. Maintains contact with individuals and units within and outside the organization, acting independently on technical matters pertaining to the field. Work requires extensive progressive experience, including work comparable to level V.

Direction received: Receives assignments in terms of broad functional responsibilities, overall objectives and resource availability. Keep supervisor informed of progress.

Typical duties and responsibilities: Examples of work assignments may include the following:

- As a supervisor, (a) plans, organizes, and directs a number of large and important projects, a project of major scope and importance, or a large number of small projects with many complex features or (b) is responsible for the entire chemical or engineering program of a company or government agency when the program is of limited complexity and scope. Activities supervised are of such scope that they require a few (three to five) subordinate supervisors or team leaders with at least one comparable to level V.

- As an individual researcher or specialist, determines, conceives, plans, and conducts projects of considerable scope and complexity and of major importance to the employer. Problems are difficult to define, require unconventional and novel approaches and sophisticated research techniques to resolve, and must be approached through a series of complete and conceptually related studies. May serve as a consultant to other engineers and scientists.

- As a staff specialist, serves as the technical expert for applying advanced theories, concepts, principles, and processes for an assigned area of responsibility (i.e., subject matter, function, type of facility or equipment, or product). Keeps abreast of new scientific methods and developments affecting the organization for the purpose of recommending changes in emphasis of programs or new programs warranted by such developments.

Responsibility for the direction of others: Plans, organizes and supervises the work of a staff of engineers, scientists, and technicians. Evaluates progress of the study and the results obtained, and recommends major changes to achieve overall objectives. Or, as an individual researcher or staff specialist, may be assisted on projects by other engineers, scientists or technicians.

Physical/Biological Scientist VII	1727
Computer/Engineering Scientist VII	1737
Scientist VII (Not Classifiable By Discipline)	1797

General characteristics: Makes decisions and recommendations that are recognized as authoritative and have an important impact on extensive activities. Typically, has achieved recognized standing in a professional field for scientific or engineering contributions. Initiates and maintains contact with key scientists and officials of other organizations requiring skill to persuade and negotiate mutually satisfactory solutions to critical issues. At this level, engineers and scientists have demonstrated creativity, foresight, and mature judgment in anticipating and solving unprecedented problems, determining program objectives and requirements, organizing programs and projects, and developing standards and guides for diverse activities.

Direction received: Receives general administrative direction.

Typical duties and responsibilities: Examples of work assignments may include the following:

- As a supervisor, is responsible for a) an important segment of a company's or government agency's engineering or scientific program with extensive and diversified requirements, or b) the entire engineering or scientific program of a company or agency when the program is more limited in scope. Resolves critical problems which require major technological advances and opens the way for extensive related development. Recommends the most profitable scientific objectives and levels of work taking into consideration the organization's program requirements and scientific and industrial trends and developments. Extent of responsibilities generally requires several subordinate organizational segments or teams. Recommends facilities, personnel, and funds required to carry out programs which are directly related to and directed toward fulfillment of overall objectives.

- As an individual researcher or consultant, is recognized as a leader and authority in the company or government agency in a broad area of specialization or in a narrow but intensely specialized field. Advises officials on complex aspects of extremely broad and important programs. Selects research problems to further program objectives. Conceives and plans investigations of broad areas of considerable novelty and importance, for which precedents are lacking in areas critical to the overall engineering or scientific program. Is consulted extensively by associates and others, with a high degree of reliance placed on the professional's scientific interpretations and advice. Typically, will have contributed inventions, new designs, or techniques which are regarded as major advances in the field.

Responsibility for the direction of others: Directs several subordinate supervisors or team leaders, some of whom are in positions comparable to level VI; or as an individual researcher and consultant, may be assisted on projects by other engineers, scientists, and technicians.

Physical/Biological Scientist VIII	1728
Computer/Engineering Scientist VIII	1738
Scientist VIII (Not Classifiable By Discipline)	1798

General characteristics: Makes decisions and recommendations that are authoritative and have far-reaching impact on extensive engineering and scientific programs and related activities. Negotiates critical and controversial issues with top level scientists and officials of other organizations, who are themselves regarded as authorities in the specialized scientific field, and represents the organization in professional forums. Scientists and engineers have demonstrated a high degree of creativity, foresight, and mature judgment in planning, organizing and guiding extensive engineering and scientific programs and activities of outstanding novelty and importance.

Direction received: Receives general administrative direction.

Typical duties and responsibilities: Examples of work assignments may include the following:

- As a supervisor, is responsible for a) an important segment of very extensive and highly diversified engineering or scientific program of a company or government agency, or b) the entire engineering or scientific program of a company or agency when the program is of moderate scope. The programs are of such complexity and scope that they are of critical importance to overall objectives, include problems of extraordinary difficulty that have resisted solution, and consist of several segments requiring subordinate supervisors. Decides the kind and extent of programs needed to accomplish the objectives of the company or agency, chooses scientific approaches, plans and organizes facilities and programs, and interprets results.

- As an individual researcher and consultant, formulates and guides the plan for resolving problems of exceptional difficulty and marked importance to the company, industry, or government. Problems are characterized by their lack of scientific precedent and source material, or the lack of success of prior research and analysis so that their solution would represent an advance of great significance and importance. Serves as the authority and consultant for broad program areas or for an intensely specialized area of considerable novelty and importance.

Responsibility for the direction of others: Supervises several subordinate supervisors or team leaders some of whom are comparable to level VII, or individual researchers some of whom are comparable to level VII and sometimes VIII. As an individual researcher and consultant, may be assisted on projects by other engineers, scientists, or technicians.

NOTE: Scientists or engineers in charge of an engineering or scientific program may match any of the higher levels described above, depending on the program's size and complexity. Excluded are 1) engineers or scientists in charge of programs so extensive and complex (e.g., consisting of highly diversified or unusually novel products or procedures) that one or more subordinate supervisory engineers or scientists are comparable to level VIII; 2) individuals whose decisions have direct and substantial effect on setting policy for the organization (included, however, are supervisors deciding the "kind and extent of engineering or scientific programs" within broad guidelines set by management officials); and 3) individual researchers and consultants who are recognized as national and/or international authorities and scientific leaders in very broad areas of scientific interest and investigation.

Not classifiable by level	
Physical/Biological Scientist	1729
Computer/Engineering Scientist	1739
Scientist (Not Classifiable By Discipline)	1799

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

REGISTERED NURSE (RN)

Provides professional nursing care to patients in hospitals, nursing homes, clinics, health units, private residences, and community health organizations. (Visiting nurses are included.) Assists physicians with treatment; assesses patient health problems and needs; develops and implements nursing care plans; maintains medical records; and assists patients in complying with prescribed medical regimen. May specialize, e.g., operating room nurse, psychiatric nurse, nurse anesthetist, industrial nurse, nurse practitioner, and clinical nurse specialist. May supervise LPN's and nursing assistants.

Excluded are:

a. nurse midwives;
b. nursing instructors, researchers and consultants who do not provide nursing care to patients;
c. nursing supervisors and managers, e.g., head nurses, nursing coordinators, directors of nursing; and

d. RN trainees primarily performing such entry level nursing care as: recording case histories; measuring temperature, pulse, respiration, height, weight, and blood pressure; and testing vision and hearing.

Registered Nurse I 2051

Provides comprehensive general nursing care to patients whose conditions and treatment are normally uncomplicated. Follows established procedures, standing orders, and doctor's instructions. Uses judgment in selecting guidelines appropriate to changing patient conditions. Routine duties are performed independently; variations from established routines are performed under specific instructions. Typical assignments include:

Staff. Prepares hospital or nursing home patients for tests, examinations, or treatment; assists in responding to emergencies; records vital signs and effects of medication and treatment in patient charts; and administers prescribed medications and intravenous feedings.

Operating Room. Assists in surgical procedures by preparing patients for less complex operations (e.g., appendectomies); sterilizes instruments and other supplies; handles instruments; and assists in operating room, recovery room, and intensive care ward.

Psychiatric. Provides routine nursing care to psychiatric patients. May observe and record patient behavior.

Health Unit/Clinic. Administers immunizations, inoculations, allergy treatments, and medications in a clinic or employer health unit; performs first aid for minor burns, cuts, bruises, and sprains; obtains patient histories; and keeps records, writes reports, and maintains supplies and equipment.

Registered Nurse II 2052

Plans and provides comprehensive nursing care in accordance with professional nursing standards. Uses judgment in assessing patient conditions, interprets guidelines, and modifies patient care as necessary. Recognizes and determines proper action for medical emergencies, e.g., calls physician or takes preplanned emergency measures. Typical assignments include:

Staff. In addition to the duties described at level I, usually performs more complex procedures, such as: administering blood transfusions; managing nasal-pharyngeal, gastric suction, and other drainage tubes; using special equipment such as ventilator devices, resuscitators and hypothermic units; or closely monitoring postoperative and seriously ill patients.

Operating Room. Provides nursing service for surgical operations, including those involving complex and extensive surgical procedures. Confers with surgeons concerning instruments, sutures, prosthesis and special equipment; cares for physical and psychological needs of patients; assists in the care and handling of supplies and equipment; assures accurate care and handling of specimens; and assumes responsibility for aseptic technique maintenance and adequacy of supplies during surgery.

Psychiatric. Provides comprehensive nursing care for psychiatric patients. In addition to observing patients, evaluates and records significant behavior and reaction patterns and participates in group therapy sessions.

Health Unit/Clinical. Provides a range of nursing services, including preventive health care counselling. Coordinates health care needs and makes referrals to medical specialists; assesses and treats minor health problems; advises whether employees should return to work, or be referred to physician; administers emergency treatment; performs limited portions of physical examinations; manages the stable phases of common chronic illnesses; and provides individual and family counselling.

Community Health. Provides a broad range of nursing services including adult and child health care, chronic and communicable disease control, health teaching, counselling, referrals, and follow-up.

Registered Nurse II Specialist 2030

Plans and provides highly specialized patient care in a difficult specialty area, such as intensive care or critical care. In comparison with Registered nurse II, pay typically reflects advanced specialized training, experience, and certification. May assist higher level nurses in developing, evaluating, and revising nursing plans. May provide advice to lower level nursing staff in area of specialty.

Registered Nurse III 2053

Plans and performs specialized and advanced nursing assignments of considerable difficulty. Uses expertise in assessing patient conditions and develops nursing plans which serve as a role model for others. Evaluation and observation skills are relied upon by physicians in developing and modifying treatment. Work extends beyond patient care to the evaluation of concepts, procedures, and program effectiveness. Typical assignments include:

Specialists. Provides specialized hospital nursing care to patients having illnesses and injuries that require adaptation of established nursing procedures. Renders expertise in caring for patients who are seriously ill; are not responding to normal treatment; have undergone unique surgical operations; or are receiving infrequently used medication. Duties may require knowledge of special drugs or the ability to provide pulmonary ventilation.

Psychiatric Specialist. Provides nursing expertise on an interdisciplinary treatment team which defines policies and develops total care programs for psychiatric patients.

Practitioner. Provides primary health care and nursing services in clinics, schools, employer health units, or community health organizations. Assesses, diagnoses, and treats minor illnesses and manages chronic health problems. Other services may include: providing primary care for trauma cases, including suturing; planning and conducting a clinic, school or employer health program; or studying and appraising community health services.

Registered Nurse III Anesthetist 3413

Recommends and administers general anesthetics intravenously, topically, by inhalation, or by endotracheal intubation; induces patient anesthesia, and manages proper states of patient narcosis throughout prolonged surgeries. Determines the need for and administers parenteral fluids, including plasma and blood; administers stimulants as directed. May also administer local anesthetics, as needed.

Registered Nurse IV 2054

Plans, researches, develops, and implements new or modified techniques, methods, practices, and approaches in nursing care. Acts as consultant in area of specialization and is considered an expert or leader within specialty area. Consults with supervisor to develop decisions and coordinates with other medical staff and community. Typical assignments include:

> Specialist/Consultant. Provides expert and complex hospital nursing and health care to a specialized group of patients. Develops and monitors the implementation of new nursing techniques, policies, procedures and programs; instructs nursing and medical staff in specialty; represents the specialty to outside organizations; and evaluates, interprets, and integrates research findings into nursing practices.
>
> Practitioner. Serves as primary health advisor in clinics and community health organizations and provides full range of health care services. Manages clinic and is responsible for formulating nursing and health care standards and policies, including developing and teaching new techniques or practices and establishing or revising criteria for care. Collaborates with physician in planning, evaluating, coordinating and revising program and determines conditions, resources and policies essential to delivery of health care services.

Not classifiable by level 2059

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PHARMACIST (Except Retail Trade Establishments)

Ensures prompt and accurate pharmacy services for patients, nurses, physicians, dentists, and other health care professionals. Interprets and evaluates the validity and safety of medical prescriptions. Dispenses medication in accordance with legal requirements and establishment's policies. Provides information to health care professionals and patients regarding medications and drug therapy. Typically requires both a bachelor's degree from an accredited school of pharmacy and State licensing.

Excluded are:

a. pharmacist interns;

b. pharmacists below level I who perform routine work under close supervision;

c. pharmacists in retail trade establishments (S.I.C.'s 52-59); and

d. chief pharmacists who direct or administer an entire pharmacy program.

Pharmacist I 7411

Applies well-established pharmaceutical principles, concepts, and practices, to conventional problems. Reviews written prescriptions to determine needed ingredients. Compounds and dispenses medications and other pharmaceutical supplies using established procedures. May explain directions for using medications to health care staff, patients, or family members. Maintains patient prescription records. As required by Federal and State law, maintains substance control records when dispensing dangerous drugs, poisons, narcotics, and other controlled substances. May perform additional administrative duties and/or supervise nonprofessional pharmacy staff.

NOTE: Establishments may have two separate job levels which match Pharmacist I. In these instances, due to market conditions, the higher position is typically used for employee growth.

Pharmacist II (Senior Pharmacist, Pharmacy Supervisor) 7412

This level includes first line supervisors of Pharmacists I, staff pharmacists in a specialty field, and staff generalists with broad experience in total pharmacy operations.

Typical duties and responsibilities include:

1. In a supervisory capacity administers a unit or section of a relatively large pharmacy service, such as bulk compounding, quality control, product formulation, or outpatient service. Exercises responsibility for the economy and effectiveness of operations. Establishes procedures, schedules work, and integrates activities with those of the overall pharmacy program; plans and controls stock levels; resolves complex problems; and provides day-to-day staff supervision.

OR

2. As a staff pharmacist in a specialty field, or a generalist with broad experience in total pharmacy operations, provides authoritative professional guidance on difficult, complex, or unusual problems. Applies advanced knowledge, extensive experience, or original judgment and ingenuity to develop special formulas, extemporaneous compounds, and special preparations; advises on known and potential effects of new or research drugs; serves as pharmacist-consultant on treatment and diagnostic teams; or takes an active role in planning and implementing research or treatment programs.

Not classifiable by level 7419

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PHYSICAL THERAPIST

Performs professional physical therapy work in organizing and conducting medically prescribed programs to restore function, relieve pain, and prevent disability following disease, injury, or loss of body part. Treats patients through therapeutic exercise, massage, and physical agents such as air, water, electricity, sound, and radiant energy. Performs and interprets tests and measurements to provide diagnostic and post-surgical information.

Requires a knowledge of scientific principles, concepts and practices of physical therapy obtained from the successful completion of a four year certified physical therapy curriculum and affiliated clinical requirements, or equivalent training and experience.

Excluded are:

a. support positions, such as therapy assistants, who use practical experience obtained from precedent cases, rather than a professional knowledge of scientific principles and concepts, to treat patients;

b. trainee positions designed to provide basic experience in planning and administering treatment;

c. professional positions in other therapy fields, such as recreation therapy, corrective therapy, manual arts therapy, speech therapy, occupational therapy and educational therapy;

d. supervisory positions; and

e. advisory or consulting positions.

Physical Therapist I 6311

Independently plans and carries out a full range of treatments using standard approaches and established procedures. Prepares graduated treatment plans using medical information, evaluation of patient's condition, determination of goals, and selection of suitable activities to achieve objectives. In addition to providing patient treatment, typical duties include: interpreting the results of manual muscle and nerve, skin temperature and resistance, and joint motion tests; assessing functional capabilities and daily living activities for patients; outlining problems and developing long-and short-term therapy goals under the guidance of a supervisor; and evaluating patient responses to treatments. Usually treats patients with a single disability and no secondary complications. Works under general supervision; seeks technical advice in solving nonroutine problems; and may provide technical direction to nonprofessional staff.

Physical Therapist II (Senior Physical Therapist) 6312

Independently evaluates, plans and carries out a full range of treatments with complex therapeutic objectives involving procedures requiring highly specialized knowledge and skills. Treats patients who are acutely ill or have a combination of severe physical disabilities with secondary complications. Performs complex evaluations and tests to determine the need for surgical or medical procedures. Adapts and modifies treatment plans, activities, and procedures, and exercises professional judgment in solving nonroutine problems. May provide technical direction and training to lower level therapists.

Not classifiable by level 6319

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

MEDICAL TECHNOLOGIST

Performs professional work in conducting various chemical, microscopic, and/or bacteriologic tests to obtain data used in the medical diagnosis and treatment of patients. The work generally requires a bachelor's degree in medical technology or equivalent experience and education combined. Applies standard methods and techniques used in the fields of bacteriology, clinical chemistry, hematology, immunohematology, immunology, mycology, parasitology, serology, urinalysis, and virology. Carries procedures to completion (and a numerical answer). Records laboratory test results, but does not prepare or evaluate diagnostic reports. May also engage in research and/or teaching activities.

Examples of work performed include:

Blood bank procedures, such as blood typing, cross-matching, antibody titrations, and identifications;

Diagnostic procedures in urinalysis, including biochemical tests and microscopic examinations;

Diagnostic procedures in hematology, including complete blood counts, and coagulation determinations;

Immunological procedures, such as tests for syphilis, serological diagnosis of infectious mononucleosis, and rheumatoid arthritis;

Clinical chemistry procedures for diagnosis and evaluation of liver, kidney, and thyroid functions;

Bacteriological procedures on specimens submitted for culture; and

Parasitological identifications, including mycology and tuberculosis cultures;

Excluded are:

a. medical laboratory technicians who perform routine medical laboratory tests not requiring a professional knowledge of medical technology;

b. pathologists who study the results of medical laboratory tests to diagnose patient illnesses;

c. trainees and other professional positions below level I; workers in these excluded positions use professional knowledge to conduct a limited variety of specialized tests using standard methods and techniques, working under close supervision and/or strict guidelines.

d. positions above level II; workers in these excluded positions use advanced knowledge and skill to resolve diverse, complex problems in unusually difficult or uncommon tests.

e. supervisors of medical technologists.

Medical Technologist I 4511

Performs a limited variety of standard, but specialized, medical laboratory tests and non-routine procedures on patient specimens; reviews, interprets, analyzes, and records test results. Selects test procedures and prepares specimens. Prepares and controls test materials, such as solutions, reagents, media, and stains. Maintains and calibrates laboratory instruments.

Within established criteria, uses judgment and initiative in planning sequences of tasks required to complete recurring assignments. Obtains assistance from supervisor for deviations and unanticipated or unfamiliar problems.

Medical Technologist II (Sr or Lead Medical Technologist) 4512

Performs a wide range of specialized tests and non-routine procedures on patient specimens. Uses discretion and professional judgment in assessing data and verifying results. Establishes quality controls; calculates and correlates test procedures; troubleshoots and modifies existing procedures; and develops, evaluates, refines, and implements protocols for new procedures.

Plans and carries out assignments using judgment in selecting, adapting, and implementing appropriate methods; recognizing and correcting erroneous results; troubleshooting complex instruments; and correlating test results with patient information. Researches protocols and manuals or consults with higher authorities to resolve technical problems. May supervise a few laboratory technicians and/or provide technical direction to lower level medical technologists.

Not classifiable by level 4519

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

TECHNICAL SUPPORT OCCUPATIONS

LICENSED PRACTICAL NURSE (LPN)

LPN's are licensed to provide practical or vocational nursing care to patients in hospitals, nursing homes, clinics, health units, homes, and community health organizations. They typically work under the supervision of a registered nurse or physician, and may supervise unlicensed nursing assistants.

LPN I 2061

Provides standard nursing care requiring some latitude for independent judgment and initiative to perform recurring duties. Supervisor provides additional instructions for unusual or difficult tasks. Deviations from specific guidelines must be authorized by the supervisor. Typical assignments include:

> Hospitals/Nursing Homes. As part of a nursing team, assists patients in attending to their personal hygiene; measures and labels routine specimens; records vital signs; provides routine treatments such as compresses, enemas, sterile dressings, and sitz baths; prepares and administers commonly prescribed medications; observes and reports on patient conditions; and teaches patient self care repeating instructions previously provided by professional staff.
>
> Mental Health/Resident Care. As part of a nursing team, makes rounds of assigned area to count patients; observes patients for changes in behavior and checks for cleanliness; encourages patients to participate in recreational activities; maintains standard records of patients and medications; and administers first aid.
>
> Clinics/Community Health Organizations. Performs routine nursing procedures such as taking and recording height, weight, measurements and vital signs. Performs vision, hearing, urine and tuberculin skin tests; records test results. Administers medications and immunizations under supervision of an RN; observes, records and reports signs of illness or changes in patient condition; and assists physician with physical examinations. May provide routine nursing care to the sick at home, reinforcing physician's instructions, checking medication and eating and sleeping habits, and inquiring about additional problems.

LPN II 2062

Provides nursing care requiring an understanding of diseases and illnesses sufficient to enhance communication with physicians, registered nurses and patients. Follows general instructions in addition to established policies, practices, and procedures. Uses judgment to vary sequence of procedures based on patient's condition and previous instructions. Supervisory approval for requested deviations is given routinely. Guidance is provided for unusual occurrences.

> Hospitals/Nursing Homes. As a responsible member of a nursing team, cares for patients in various stages of dependency (e.g., ranging from those receiving general medical care to a selected few who are critically ill). Provides appropriate verbal and written information for patient care plans. In addition to the tasks described at level I, assignments may include more complex duties such as: catheterizing, irrigating, or suctioning patients; observing and reporting on subtle changes in a patient's condition; monitoring and maintaining intravenous fluids; and assisting in resuscitation procedures.

Mental Health/Resident Care. Provides input into nursing team conferences by interpreting patient nursing care needs and responses to therapy. In addition to the tasks described at level I, serves as a role model by performing and teaching self care; participates in therapy sessions by promoting self care and self worth; and records progress in treatment plans.

Clinics/Community Health Organizations. In addition to the duties described at level I, uses experience and judgment to perform more complex procedures such as: screening patients for health problems such as hypertension and diabetes, using judgment in deciding to refer patients to RN or physician; providing patient counselling and implementing therapeutic approaches specified in the patient's treatment plan; coordinating selected clinic operations; giving irrigations and catheterizations, suctioning tracheotomies and conducting electrocardiograms; or recertifying applicants for supplemental food programs when test results indicate nutritional deficiencies.

Employer Health Units. Uses judgment to perform moderately complex procedures such as: treating employees for minor illnesses and work related injuries, and referring difficult cases to RN or physician; observing reactions to drugs and treatments and reporting irregularities; assisting physicians with examinations and treatments; and maintaining records of occupational illnesses and injuries as required by Federal and State regulations.

LPN III 2063

This level applies to two different work situations. In situation 1), LPN's provide nursing care for patients in various stages of dependency, setting priorities and deadlines for patient care, and modifying nursing care as necessary prior to notifying the supervisor. In situation 2), LPN's are assigned to a selected group of critically ill patients, e.g., in hospital intensive care or coronary care units. These assignments require LPN's to immediately recognize and respond to serious situations, sometimes prior to notifying an RN. However, their overall independence and authority is more limited than that described in situation 1 and supervisory approval is required for proposed deviations from established guidelines.

Hospitals. Under direct supervision of an RN, provides nursing care to critically ill patients in such areas as intensive care or coronary care. Duties, while similar to the more complex responsibilities described at level II, are performed under stressful conditions requiring special techniques and procedures in reacting to life-threatening situations and in providing basic patient care. Evaluates appropriateness of planned treatment, given the patient's condition, and proposes modifications to RN.

Mental Health/Resident Care/Nursing Homes. Duties are similar to those described at level II. However, these LPN's are authorized to adapt, if necessary, nursing care methods and procedures to meet changing patient needs.

Exclude LPN's above level III. Such positions not only provide difficult nursing care to a selected group of critically ill patients, but also set priorities and deadlines for patient care, and modify nursing care prior to notifying the supervisor.

Not classifiable by level 2069

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

NURSING ASSISTANT

Provides personal and nursing care to patients in hospitals, nursing homes, resident care facilities, clinics, private homes, and community health organizations. Duties include maintaining patient hygiene and supporting doctors and nurses in diagnostic procedures, technical treatments, patient charting and patient teaching. Work does not require State licensure. Supervisory positions are excluded.

Nursing Assistant I 2071

Performs simple personal care and housekeeping tasks requiring no previous training. Typical tasks include: bathing, dressing, feeding, lifting, escorting, and transporting patients; collecting laundry carts and food trays; taking and recording temperatures; and changing bed linen and cleaning patient's room. Follows detailed and specific instructions.

Nursing Assistant II 2072

In addition to providing personal care, performs common nursing procedures such as: observing and reporting on patient conditions; taking and recording vital signs; collecting and labeling specimens; sterilizing equipment; listening to and encouraging patients; giving sitz baths and enemas; applying and changing compresses and non-sterile dressings; checking and replenishing supplies; securing admission data from patients; and assisting in controlling aggressive or disruptive behavior. Follows specific instructions; matters not covered are verified with the supervisor.

NOTE: Positions receiving additional pay for performing the above duties and responsibilities in forensic units of mental health institutions should be matched at level III. Workers in such positions must regularly use skill in influencing and communicating with patients who display abusive or resistant behavior.

Nursing Assistant III 2073

Performs a variety of common nursing procedures as described at level II. Work requires prior experience or training to perform these procedures with some latitude for exercising independent initiative or limited judgment. May also: perform several procedures sequentially; chart patient care; administer prescribed medication and simple treatments; teach patient self care; and lead lower level nursing assistants.

NOTE: Positions receiving additional pay for performing the above duties and responsibilities in forensic units of mental health institutions should be matched at level IV. (See NOTE for level II.)

Nursing Assistant IV 2074

Applies advanced patient or resident care principles, procedures and techniques which require considerable training and experience. In addition to the work described at level III, typical duties include: assisting professional staff in planning and evaluating patient or resident care; recognizing subtle changes in patient's condition and behavior and varying nursing care accordingly; catheterizing, irrigating and suctioning patients; monitoring IV fluids and alerting registered nurse when system needs attention; and performing minor operative and diagnostic procedures in a clinic. Supervisor describes limitations or priorities of work.

Excluded are nursing assistants above level IV. Workers in these excluded positions typically participate (rather than assist) in planning and modifying patient or resident care; function as co-therapists in mental health therapy sessions; or coordinate treatment activities with patients, families, and faculty staff. Also excluded are positions receiving additional pay for performing level IV duties and responsibilities in forensic units of mental health institutions. (See NOTE for level II.)

Not classifiable by level 2079

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

RESPIRATORY THERAPIST

Administers therapeutic and diagnostic procedures to patients with cardiopulmonary disorders. Under general medical supervision, and by prescription, sets up and operates respiratory equipment, such as continuous and intermittent ventilators, therapeutic gas administration apparatus, environmental control systems and aerosol generators. Observes equipment gages to insure specific volumes are maintained, and monitors patient's physiological responses to therapy as well as equipment functioning.

Requires the completion of a related technical education program, or an extensive period of on the job training.

Excluded are:

a. positions (e.g., respiratory therapy technicians and aides) below level I; workers in these excluded positions administer respiratory therapy treatments under supervision, but do not perform the more technical procedures, such as diagnostic tests or treatment evaluation; and

b. supervisory positions.

Respiratory Therapist I (Certified Respiratory Therapist/Technician) 6421

Administers a variety of prescribed therapeutic and diagnostic respiratory therapy procedures. Typical duties include: Setting up and regulating ventilators and other therapeutic apparatus with respect to flows, volumes, pressures, breathing rates and patterns, and gas composition; delivering therapeutic gases and dosages of aerosolized medication to broncho-pulmonary trees; removing broncho-pulmonary secretions by means of mechanical suction and broncho-pulmonary drainage; assisting patients in deep breathing and coughing with inspiratory positive pressure breathing exercises; performing cardiopulmonary resuscitation; maintaining artificial airways; and administering diagnostic procedures such as basic spirometry, dead space and tidal volume ratios, and blood gas analysis.

May also assist in placing artificial airways into patient's trachea; and/or perform physiological monitoring and assessment of pulmonary status (i.e., chest auscultation, percussion and observation). Supervisor typically outlines general work objectives, priorities and results expected, and provides specific instructions concerning the status and care of seriously ill patients.

Respiratory Therapist II (Registered Respiratory Therapist) 6422

In addition to performing duties described for level I, independently administers a variety of complex respiratory therapy treatments and diagnostic procedures. Typical duties at this level include: Adjusting settings on volume ventilators in response to changes in patient status, and developing plans for weaning patients from ventilators; cleaning, changing, and securing tracheostomy and endotracheal tubes and sites, monitoring tube cuff pressure, and inspecting patients and equipment to insure that the systems are functioning properly; providing in-service training to lower-level respiratory therapists and nurses in delivering respiratory treatments; and observing them during performance to correct faulty techniques and answer questions.

Participates in planning or modifying respiratory treatment procedures. During emergencies, may independently insert artificial airways into patient's trachea, initiate artificial ventilation, and perform cardiopulmonary resuscitation. Supervisor typically provides few preliminary instructions, and work is spot checked.

Not classifiable by level 6429

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PHARMACY TECHNICIAN

Under the supervision of a pharmacist, provides paraprofessional support in a pharmacy. Assists in the technical and clerical aspects of preparing, dispensing and delivering medications and pharmaceutical supplies.

Excluded are:

a. pharmacy personnel (e.g. stock clerks, pharmacy clerks, etc.) primarily engaged in activities other than preparing and dispensing medications; and

b. pharmacists.

Pharmacy Technician I 7511

Provides routine paraprofessional support in a pharmacy. Typical duties include: Filling routine prescriptions under the supervision of a pharmacist; operating automatic or semi-automatic unit-dose machinery; maintaining patient medication profile records; preparing labels and updating log records with information such as expiration dates, lot numbers, generic names, and names of patients; and taking physical inventories and maintaining inventory records.

May also deliver medications to other operating units in the establishment. May provide clerical support. Receives direct supervision.

Pharmacy Technician II 7512

Provides advanced paraprofessional support in a pharmacy. In addition to performing duties described for level I, uses some judgment in carrying out assigned tasks. Typical duties include: Compounding and packaging a variety of external and internal products for review by pharmacist; reconstituting sterile medications to be used in intravenous solutions; and providing training for and reviewing the work of lower level technicians and clerks.

Work is reviewed for conformance with established procedures.

Not classifiable by level 7519

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

RADIOLOGY TECHNICIAN

Processes radiographs (X-rays) of various portions of the body to detect foreign bodies and/or to assist in the diagnosis of disease and trauma. Prepares patients for examinations, positions patients for optimum results, sets technical exposure factors, and practices radiation protection measures.

Excluded are:

a. positions (e.g., X-ray technicians, X-ray assistants, radiology aides) below level I; workers in these excluded positions perform routine X-ray examinations under close supervision;

b. positions above level II; workers in these excluded positions either 1) coordinate the operation of auxiliary equipment (rapid film changers, power injectors, and cinecameras) to perform highly complex examinations, or 2) apply a comprehensive knowledge of complex procedures with little supervision or instruction;

c. radiation therapists who provide therapy treatments;

d. professional radiologists; and

e. supervisory positions.

Radiology Technician I (X-Ray Technician, Certified Radiography Technician, Radiology Technologist) 4911

Performs radiography work as described in one of the two situations below:

1. Independently performs routine X-ray examinations for diagnosing broken bones, sprains, tuberculosis, etc. Adapts procedures and positions to accommodate patients' frailties, deformities, injuries, or health conditions.

2. Under the direction of a radiologist or supervisor, performs standard radiography examinations including barium enema GI series, pyelograms, and cholangiograms. Assists in preparing and administering contrast media orally or by enema.

Radiology Technician II (X-Ray Technologist, Registered Radiography Technician, Senior Radiology Technologist, Special Procedures Technician, CAT Scan Operator) 4912

Performs a variety of difficult radiographic examinations, such as, linear tomography (CAT or CT scans), xerographic mammography, lumbar and thoracic myelography, bronchography, lymphangiography, or femoral arteriography. Uses knowledge of the effects of common diseases and surgical procedures to adjust positioning, technical factors, or other variables to ensure the acceptability of radiographs. Administers contrast media under the close control of a radiologist. Receives instructions on new procedures and techniques; obtains advice on technical problems.

Not classifiable by level 4919

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

MEDICAL MACHINE OPERATING TECHNICIAN

Operates and monitors medical machines, equipment, or instruments as part of the examination or treatment of patients in hospitals, clinics, or other medical establishments. Work is subordinate to the work of physicians or other professional employees. Work involves medical machines, equipment, or instrument used in:

- cardiac catheterization;
- electrocardiography; (EKG, ECG)
- electroencephalography; (EEG)
- hemodialysis;
- controlling the pressure in a hyperbaric-oxygen chamber;
- pulmonary examinations and evaluations;
- ultrasonography (sonography) or thermography;
- ☞ **magnetic resonance imaging**

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Excluded are:

(a) medical machine aides or trainees (below level I) performing tasks that are preparatory or auxiliary to the complete examination and treatment of patients under close supervision;
(b) positions above level IV having full responsibility for resolving diverse and complex technical problems resulting from changing technologies, inadequate information about the use and capabilities of new instruments, requests for modified procedures, test alternatives, or special chemical or research studies;
(c) Positions above level IV responsible for either writing procedures and instructions for new types of examinations or treatments or for testing new types of equipment;
(d) perfusion technicians operating heart-lung apparatus during heart bypass surgery;
(e) respiratory therapists;
(f) diagnostic and therapeutic radiology technicians; and
(g) medical laboratory technicians.

Medical Machine Operating Technician I 2091

Performs standard examinations or treatments requiring little deviation from instructions or procedures. Assignments require skill in performing either 1) delicate measurements or machine adjustments, or 2) repetitive observations requiring subtle determinations.

Medical Machine Operating Technician II 2092

Performs examinations or treatments that require selecting and adapting techniques and procedures to individual assignments. Based on experience:

- varies test or treatment procedures according to patient's condition and assesses adequacy of results obtained under difficult circumstances (e.g., patient is too sick to cooperate);

- recognizes when common test results or patient reactions indicate the need for either additional tests to pinpoint abnormalities or for consultation with a physician regarding changes to prescribed treatments; or

- performs procedures not covered by detailed instructions or that require variations to meet special needs outlined by a physician.

Frequently works with patients who are critically ill and require special procedures and handling. Recognizes adverse responses and initiates emergency procedures, such as cardiopulmonary resuscitation. Supervisor outlines general work objectives, priorities, and results expected. Work is reviewed for overall adequacy and compliance with general instructions.

Medical Machine Operating Technician III 2093

Performs complex examinations or treatments using a variety of established techniques and procedures that require a high degree of judgment and skill to perform:

- many delicate and exacting steps and subtle discriminations, and to evaluate test results and patient responses to either determine appropriate machine adjustments or select the methods and techniques that will produce the most effective results; and/or

- as a team member in long, extensive, complex procedures that require alertness and precision to coordinate actions with others, and to make rapid and accurate observations or adjustments in accordance with precedents, in response to either physician demands or changes in patient's condition.

Supervisor provides few preliminary instructions; work is spot-checked. Technician requests assistance only when established procedures and techniques prove inadequate. Trains others to perform standard procedures.

Medical Machine Operating Technician IV 2094

Performs complex examinations or treatments that regularly require innovative and adaptive approaches. Performs complex and relatively new procedures or operates equipment for which accepted practices have not been established. Work requires extensive training and experience to:

- make decisions, in the absence of definitive instructions or directly related precedents, to remedy difficulties or to improve the accuracy of techniques in order to obtain unusually precise measurements or adjustments; and

- make precise discriminations in evaluating either patient reactions or data from monitoring equipment, and taking appropriate actions, without instructions, to control or compensate for adverse reactions.

Participates in planning medical or experimental procedures involving new techniques. May train others in performing such techniques. Receives general guidance in anticipating possible problems. Supervisor usually relies on technician's judgment.

Not classifiable by level 2099

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

CIVIL ENGINEERING OR SURVEY TECHNICIAN/CONSTRUCTION INSPECTOR

Provides semiprofessional support to engineers or related professionals engaged in the planning, design, management, or supervision of the construction (or alteration) of such structures as buildings, streets and highways, airports, sanitary systems, or flood control systems. Applies knowledge of the methods, equipment, and techniques of several of the following support functions:

☞ Data compilation and analysis/design and specification - gathering, tabulating and/or analyzing hydrologic and meteorologic information, quantities of materials required, traffic patterns, or other engineering data; preparing **detailed** site layouts and specifications; **and reviewing and analyzing design drawings for feasibility, performance, safety, durability, and design content.**

Testing - measuring the physical characteristics of soil, rock, concrete or other construction materials to determine methods and quantities required or to comply with safety and quality standards;

Surveying - measuring or determining distances, elevations, areas, angles, land boundaries or other features of the earth's surface; or

☞ Construction inspection **and monitoring** - performing on-site inspection of construction projects to determine conformance with contract specifications and building codes. **Levels V and VI include positions responsible for monitoring and controlling construction projects**.

☞ Excluded are **building, electrical, and mechanical inspectors**; construction, maintenance, and craft workers; chemical or other physical science technicians; engineers required to apply professional rather than technical knowledge of engineering to their work; and technicians not primarily concerned with civil or construction engineering.

Also excluded are technicians below level I whose work is limited to very simple and routine tasks, such as identifying, weighing and marking easy-to-identify items or recording simple instrument readings at specified intervals.

Positions are classified into levels on the basis of the following definitions.

Civil Engineering or
Survey Technician/Construction Inspector I 2081

Performs simple, routine tasks under close supervision or from detailed procedures. Work is checked in progress and on completion. Performs a variety of such typical duties as:

Data compilation - compiles engineering data from tests, drawings, specifications or field notes; performs arithmetic computations by substituting values in specified formulas; plots data and draws simple curves and graphs.

Testing - conducts simple or repetitive tests on soils, concrete and aggregates; e.g. sieve analysis, slump tests and moisture content determination.

Surveying - performs routine and established functions such as holding range poles or rods where special procedures are required or directing the placement of surveyor's chain or tape and selecting measurement points.

Construction inspection - makes simple measurements and observations; may make preliminary recommendations concerning the acceptance of materials or workmanship in clear-cut situations.

Civil Engineering or
Survey Technician/Construction Inspector II 2082

Performs standard or prescribed assignments involving a sequence of related operations. Follows standard work methods and receives detailed instructions on unfamiliar assignments. Technical adequacy of routine work is assessed upon completion; nonroutine work is reviewed in progress. Performs a variety of such typical duties as:

Data compilation and analysis - compiles and examines a variety of data required by engineers for project planning (e.g., hydrologic and sedimentation data; earthwork quantities), applying simple algebraic or geometric formulas.

Testing - conducts a variety of standard tests on soils, concrete and aggregates, e.g., determines the liquid and plastic limits of soils or the flexural and compressive strength, air content and elasticity of concrete. Examines test results and explains unusual findings.

Surveying - applies specialized knowledge, skills or judgment to a varied and complex sequence of standard operations, e.g., surveys small land areas using rod, tape and hand level to estimate volume to be excavated; or records data requiring numerous calculations.

Construction inspection - Applies a variety of techniques in inspecting less complex projects, e.g., the quality, quantity, and placement of gravel for road construction; excavations; and concrete footings for structures. Determines compliance with plans and specifications. May assist in inspecting more complex projects.

Civil Engineering or Survey Technician/Construction Inspector III

2083

Performs assignments which include nonstandard applications, analyses or tests; or the use of complex instruments. Selects or adapts standard procedures using fully applicable precedents. Receives initial instructions, requirements and advice as needed; performs recurring work independently. Work is reviewed for technical adequacy and conformance with instructions. Performs a variety of such typical duties as:

Data compilation and analysis - applies knowledge and judgment in selecting sources, evaluating data and adapting methods, e.g., computes, from file notes, quantities of materials required for roads which include retaining walls and culverts; plots profiles, cross sections and drainage areas for a small earthwork dam.

☞ **Design and specification - assists in preparing plans and layouts for modifying specific structures, systems, or components by compiling pertinent design, specifications, and survey data. From detailed notes and instructions, prepares simple sketches or drawings for excavation, embankment, or structures to assist survey team in staking out work and in computing quantities.**

Testing - conducts tests for which established procedures and equipment require either adaptation or the construction of auxiliary devices. Uses judgment to interpret precise test results.

Surveying - uses a variety of complex instruments to measure angles and elevations, applying judgment and skill in selecting and describing field information. Assignments include: recording complete and detailed descriptive data and providing sketches of relief, drainage and culture; or running short traverse lines from specified points along unobstructed routes.

Construction inspection - independently inspects standard procedures, items or operations of limited difficulty, e.g., slope, embankment, grading, moisture content, earthwork compaction, concrete forms, reinforcing rods or simple batching and placement of concrete on road construction.

Civil Engineering or Survey Technician/Construction Inspector IV 2084

Plans and performs nonroutine assignments of substantial variety and complexity. Selects appropriate guidelines to resolve problems which are not fully covered by precedents. Performs recurring work independently, receiving technical advice as needed. Performs a variety of such typical duties as:

☞ Design and specification - prepares site layouts for projects from such information as design criteria, soil conditions, existing buildings, topography and survey data; **sketches plans for grading sites**; and makes preliminary cost estimates from established unit prices. OR **Reviews and develops plans, specifications, and cost estimates for standard modifications to the interior system (e.g. electrical) of a small, conventional building.**

Testing - conducts tests which require the selection and substantial modification of equipment and procedures. Recognizes and interprets subtle, i.e., fluctuating, test reactions.

Surveying - makes exacting measurements under difficult conditions e.g., leads detached observing unit on surveys involving unusually heavy urban, rail or highway traffic; serves as party chief on conventional construction, property, topographical, hydrographic or geodetic surveys. Excluded are party chiefs responsible for unusually difficult or complex surveys.

Construction inspection - performs inspections for a variety of complete projects of limited size and complexity or a phase of a larger project, e.g., conventional one or two story concrete and steel buildings; park and forest road construction limited to clearing, grading and drainage. Interprets plans and specifications, resolves differences between plans and specifications, and approves minor deviations in methods which conform to established precedents.

Civil Engineering or Survey Technician/Construction Inspector V 2085

☞ Performs nonroutine and complex assignments involving responsibility for planning and conducting a complete project of limited scope or a portion of a larger, more complex project. Selects and adapts techniques, designs, or layouts. Reviews, analyzes and interprets the technical work of others. Completed work is reviewed for technical adequacy. **Recommendations for major changes or costly alterations to basic designs are approved by supervisor.** Performs a variety of such typical duties as:

☞ Design and specification - prepares plans and specifications for major projects such as roads and airport runways, **bridge spans, highway structures**, or electrical distribution systems. Applies established engineering practice; **calculates dimensions, elevations, and quantities**; and selects and adapts precedents to meet specific requirements. **Applies applicable standards and guidelines in resolving design problems; refers difficult or novel requirements to supervisor.**

Construction inspection - inspects projects of unusual difficulty and complexity, e.g., large multi-story hospitals or laboratories which include sophisticated electrical and mechanical equipment; airport runways for jet aircraft with exacting requirements. Independently interprets plans and specifications to resolve complex construction problems.

☞ **Construction monitoring - Monitors progress of specialized phases of construction projects. For example, develops or revises specifications for clearing land for excavation; and building access roads, utilities, construction offices, testing facilities, and maintenance and storage facilities. OR Investigates prospective contractor's capabilities, operating methods, and equipment; or reviews contractor's cost estimates and operating reports for use in computing periodic payments.**

☞ Civil Engineering or Survey Technician/Construction Inspector VI 2086

Independently plans and accomplishes complete conventional projects or serves as an expert in a narrow aspect of a civil engineering field. Applies creativity and judgment to plan projects, resolve design problems, and adapt equipment, procedures, or techniques. Recommendations, plans, designs, and reports are reviewed for general adequacy and soundness of engineering judgment. Supervisor provides advice on unusual or controversial problems or policy matters. May direct or train lower level technicians.

Design and specification - Develops cost estimates for competitive bidding for a variety of multiple-use construction projects. Determines the construction processes involved, along with coordination and scheduling requirements. Compares types and capacities of construction equipment and calculates detailed cost estimates. OR Prepares designs and specifications for various utility systems of complex facilities; resolves design problems by adapting precedents or developing new design features.

Construction inspection and monitoring - Inspects and monitors progress of multi-use construction projects typically requiring more than a year for completion. Uses a knowledge of construction systems, practices, and processes to determine if projects are progressing according to contract requirements and organizational policies.

Not classifiable by level 2089

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

ELECTRONICS TECHNICIAN

Works on various types of electronic equipment and related devices by performing one or more of the following: Installing, maintaining, repairing, overhauling, troubleshooting, modifying, constructing, and testing. Work requires practical application of technical knowledge of electronics principles, ability to determine malfunctions, and skill to put equipment in required operating condition.

The equipment--consisting of either many different kinds of circuits or multiple repetition of the same kind of circuit--includes, but is not limited to, the following: (a) Electronic transmitting and receiving equipment (e.g., radar, radio, television, telephone, sonar, navigational aids), (b) personal and mainframe computers and terminals, (c) industrial and medical measuring and controlling equipment, (d) satellite equipment, and (e) industrial robotic devices.

This classification excludes repairers of such standard electronic equipment as common office machines and household radio and television sets; production assemblers and testers; workers whose primary duty is servicing electronic test instruments; ☞ technicians with a practical knowledge of science or engineering, who provide semiprofessional technical support for engineers working in such areas as research, design development, testing, or manufacturing process improvement; employees who have administrative or supervisory responsibility; and drafters, designers, and professional engineers.

Positions are classified into levels on the basis of the following definitions:

Electronics technician I 2181

Applies working technical knowledge to perform simple or routine tasks in working on electronic equipment, following detailed instructions which cover virtually all procedures. Work typically involves such tasks as: Assisting higher level technicians by performing such activities as replacing components, wiring circuits, and taking test readings; repairing simple electronic equipment; and using tools and common test instruments (e.g., digital multimeters, signal generators, semiconductor testers, curve tracers, oscilloscopes). Is not required to be familiar with complex interrelationships of circuits. This knowledge, however, may be acquired through assignments designed to increase competence (including classroom training) so that worker can advance to higher level technician.

Receives technical guidance, as required, from supervisor or higher level technician. Work is typically spot-checked, but is given detailed review when new or advanced assignments are involved.

Electronics Technician II 2182

Applies comprehensive technical knowledge to solve complex problems (i.e., those that typically can be solved solely by properly interpreting manufacturers' manuals or similar documents) in working on electronic equipment. Work typically involves: A familiarity with the interrelationships of circuits; and judgment in determining work sequence and in selecting tools and testing instruments, usually less complex than those used by the level III technician. May receive technical guidance, as required, from supervisor or higher level technician, and work is reviewed for specific compliance with accepted practices and work assignments. May provide technical guidance to lower level technicians.

Electronics Technician III

2183

Applies advanced technical knowledge to solve unusually complex problems (i.e., those that typically cannot be solved solely by reference to manufacturers' manuals or similar documents) in working on electronic equipment. Examples of such problems include determining the location and density of circuitry, evaluating electromagnetic radiation, isolating malfunctions, and incorporating engineering changes. Work typically involves: A detailed understanding of the interrelationships of circuits; exercising independent judgment in performing such tasks as making circuit analyses, calculating wave forms, tracing relationships in signal flow; and regularly using complex test instruments (e.g., high frequency pulse generators, frequency synthesizers, distortion analyzers, complex computer control equipment).

☞ Work may be reviewed by supervisor for general compliance with accepted practices. May provide technical guidance to lower level technicians.

Not classifiable by level

2189

Workers in positions with work characteristics as described, and within the range of the defined levels, should be reported under the classification when the information needed to classify them according to the level definitions is not available.

ENGINEERING TECHNICIAN

☞ To be covered by these definitions, employees must meet all of the following criteria:

1. Provides semiprofessional technical support for engineers working in such areas as research, design, development, testing, or manufacturing process improvement.
2. Work pertains to electrical, electronic, or mechanical components or equipment.
3. Required to have some practical knowledge of science or engineering; some positions may also require a practical knowledge of mathematics or computer science.

☞ **Included are workers who prepare design drawings and assist with the design, evaluation, and/or modification of machinery and equipment.**

Excluded are production or maintenance workers, quality control technicians or testers, modelmakers or other craftworkers, chemical or other non-engineering technicians, civil engineering technicians, drafters, and engineers (who are required to apply a professional knowledge of engineering theory and principles to their duties, unlike higher level engineering technicians who may perform the same duties using only practical skills and knowledge).

Also excluded are engineering technicians below level I who are limited to simple tasks such as: Measuring items or regular shapes with a caliper and computing cross-sectional areas; identifying, weighing, and marking easy-to-identify items; or recording simple instrument readings at specified intervals.

Engineering Technician I 1801

Performs simple routine tasks under close supervision or from detailed procedures. Work is checked in progress or on completion. Performs one or a combination of such typical duties as:

> Assembles or installs equipment or parts requiring simple wiring, soldering, or connecting.
>
> Performs simple or routine tasks or tests such as tensile or hardness tests; operates and adjusts simple test equipment; records test data.
>
> Gathers and maintains specified records of engineering data such as tests, drawings, etc.; performs computations by substituting numbers in specified formulas, plots data and draws simple curves and graphs.

Engineering Technician II 1802

☞ Performs standardized or prescribed assignments involving a sequence of related operations. Follows standard work methods on recurring assignments but receives explicit instructions on unfamiliar assignments. **May become familiar with the operation and design of equipment and with maintenance procedures and standards**. Technical adequacy of routine work is reviewed on completion; nonroutine work may also be reviewed in progress. Performs at this level one or a combination of such typical duties as:

> ☞ **Following specific instructions**, assembles or constructs simple or standard equipment or parts; may service or repair simple instruments or equipment;
>
> Conducts a variety of tests using established methods. Prepares test specimens, adjusts and operates equipment, and records test data, pointing out deviations resulting from equipment malfunction or observational errors.
>
> Extracts engineering data from various prescribed but nonstandardized sources; processes the data following well-defined methods including elementary algebra and geometry; presents the data in prescribed form.

Engineering Technician III 1803

Performs assignments that are not completely standardized or prescribed. Selects or adapts standard procedures or equipment, using precedents that are not fully applicable. Receives initial instruction, equipment requirements, and advice from supervisor or engineer as needed; performs recurring work independently; work is reviewed for technical adequacy or conformity with instructions. Performs at this level one or a combination of such typical duties as:

> Constructs components, subunits, or simple models **and** adapts standard equipment. May troubleshoot and correct malfunctions requiring **simple** solutions.
>
> ☞ **Follows specific layout and scientific diagrams to construct and package simple devices and subunits of equipment.**

Conducts various tests or experiments which may require minor modifications in test setups or procedures as well as subjective judgments in measurement; selects, sets up, and operates standard test equipment and records test data.

Extracts and compiles a variety of engineering data from field notes, manuals, lab reports, etc.; processes data, identifying errors or inconsistencies; selects methods of data presentation.

☞ **Assists in design modification by compiling data related to designs, specifications, and materials which are pertinent to specific items of equipment or component parts. Develops information concerning previous operational failures and modifications. Uses judgment and initiative to recognize inconsistencies or gaps in data and seek sources to clarify information.**

Engineering Technician IV 1804

☞ Performs nonroutine assignments of substantial variety and complexity, using operational precedents which are not fully applicable. **Such assignments, which are typically parts of broader assignments, are screened to eliminate unusual design problems.** May also plan such assignments. Receives technical advice from supervisor or engineer; work is reviewed for technical adequacy (or conformity with instructions). May be assisted by lower level technicians and have frequent contact with professionals and others within the establishment. Performs at this level one or a combination of such typical duties as:

☞ **Develops or reviews designs by extracting and analyzing a variety of engineering data. Applies conventional engineering practices to develop, prepare, or recommend schematics, designs, specifications, electrical drawings, and parts lists. Examples of designs include: detailed circuit diagrams; hardware fittings or test equipment involving a variety of mechanisms; conventional piping systems; and building site layouts.**

Conducts tests or experiments requiring selection and adaptation or modification of a wide variety of critical test equipment and test procedures; sets up and operates equipment; records data, measures and records problems of significant complexity that sometimes require resolution at a higher level; and analyzes data and prepares test reports.

☞ **Applies methods outlined by others** to limited segments of research and development projects; constructs experimental or prototype models to meet engineering requirements; conducts tests or experiments and redesigns as necessary; and records and evaluates data and reports findings.

Engineering Technician V 1805

Performs nonroutine and complex assignments involving responsibility for planning and conducting a complete project of relatively limited scope or a portion of a larger and more diverse project. Selects and adapts plans, techniques, designs, or layouts. Contacts personnel in related activities to resolve problems and coordinate the work; reviews, analyzes, and integrates the technical work of others. Supervisor or professional engineer outlines objectives, requirements, and design approaches; completed work is reviewed for technical adequacy and satisfaction of requirements. May train and be assisted by lower level technicians. Performs at this level one or a combination of such typical duties as:

> Designs, develops, and constructs major units, devices, or equipment; conducts tests or experiments; analyzes results and redesigns or modifies equipment to improve performance; and reports results.

☞ **From general guidelines and specifications (e.g., size or weight requirements), develops designs for equipment without critical performance requirements which are difficult to satisfy such as engine parts, research instruments, or special purpose circuitry. Analyzes technical data to determine applicability to design problems; selects from several possible design layouts; calculates design data; and prepares layouts, detailed specifications, parts lists, estimates, procedures, etc. May check and analyze drawings or equipment to determine adequacy of drawings and design.**

☞ Plans or assists in planning tests to evaluate equipment performance. Determines test requirements, equipment modification, and test procedures; conducts tests **using all types of instruments**, analyzes and evaluates test results, and prepares reports on findings and recommendations.

☞ Engineering Technician VI 1806

Independently plans and accomplishes complete projects or studies of broad scope and complexity. Or serves as an expert in a narrow aspect of a particular field of engineering, e.g., environmental factors affecting electronic engineering. Complexity of assignments typically requires considerable creativity and judgment to devise approaches to accomplish work, resolve design and operational problems, and make decisions in situations where standard engineering methods, procedures, and techniques may not be applicable. Supervisor or professional engineer provides advice on unusual or controversial problems or policy matters; completed work is reviewed for compliance with overall project objectives. May supervise or train and be assisted by lower level technicians. Performs, at this level, one or a combination of such typical duties as:

> **Prepares designs and specifications for various complex equipment or systems (e.g., a heating system in an office building, or new electronic components such as solid state devices for instrumentation equipment). Plans approach to solve design problems; conceives and recommends new design techniques; resolves design problems with contract personnel, and assures compatibility of design with other parts of the system.**

Designs and coordinates test set ups and experiments to prove or disprove the feasibility of preliminary design; uses untried and untested measurement techniques; and improves the performance of the equipment. May advise equipment users on redesign to solve unique operational deficiencies.

Plans approach and conducts various experiments to develop equipment or systems characterized by (a) difficult performance requirements because of conflicting attributes such as versatility, size, and ease of operation; or (b) unusual combination of techniques or components. Arranges for fabrication of pilot models and determines test procedures and design of special test equipment.

Not classifiable by level 1809

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

DRAFTER

Performs drafting work, manually or using a computer, requiring knowledge and skill in drafting methods, procedures, and techniques. Prepares drawings of structures, facilities, land profiles, water systems, mechanical and electrical equipment, pipelines, duct systems, and similar equipment, systems, and assemblies. Drawings are used to communicate engineering ideas, designs, and information. Uses recognized systems of symbols, legends, shadings, and lines having specific meanings in drawings.

Excluded are:

a. designers using technical knowledge and judgment to conceive, plan, or modify designs;

b. illustrators or graphic artists using artistic ability to prepare illustrations;

c. office drafters preparing charts, diagrams, and room arrangements to depict statistical and administrative data;

d. cartographers preparing maps and charts primarily using a technical knowledge of cartography;

e. supervisors.

Positions are classified into levels based on the following definitions.

Drafter I 2021

Working under close supervision, traces or copies finished drawings, making clearly indicated revisions in notes and dimensions. Uses appropriate templates to draw curved lines. Assignments are designed to develop increasing skill in various drafting techniques. Work is spot checked during progress and reviewed upon completion.

Note: Excludes drafters receiving instruction in the elementary methods and techniques of drafting and learning to use and care for equipment. Workers in these excluded positions typically trace and copy simple drawings having straight lines and few details; prepare border lines and title boxes for drawing sheets; and prepare basic title headings by tracing or using lettering kits.

Drafter II

2022

Prepares drawings of simple, easily visualized structures, systems, parts or equipment from sketches or marked-up prints. Selects appropriate templates or uses a compass and other equipment needed to complete assignments. Drawings fit familiar patterns and present few technical problems. Supervisor provides detailed instructions on new assignments, gives guidance when questions arise, and reviews completed work for accuracy. Typical assignments include:

> From marked-up prints, revises the original drawings of a plumbing system by increasing pipe diameters.
>
> From sketches, draws building floor plans, determining size, spacing, and arrangement of freehand lettering according to scale.
>
> Draws simple land profiles from predetermined structural dimensions and reduced survey notes. Traces river basin maps and enters symbols to denote stream sampling locations, municipal and industrial waste discharges, and water supplies.

Drafter III

2023

Prepares various drawings of such units as construction projects or parts and assemblies, including various views, sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Work requires use of most of the conventional drafting techniques and a working knowledge of the terms and procedures of the occupation. Makes arithmetic computations using standard formulas. Familiar or recurring work is assigned in general terms. Unfamiliar assignments include information on methods, procedures, sources of information, and precedents to follow. Simple revisions to existing drawings may be assigned with a verbal explanation of the desired results. More complex revisions are produced from sketches or specifications which clearly depict the desired product. Typical assignments include:

> From a layout and manual references, prepares several views of a simple gear system. Obtains dimensions and tolerances from manuals and by measuring the layout.
>
> Draws base and elevation views, sections, and details of new bridges or other structures; revises complete sets of roadway drawings for highway construction projects; or prepares block maps, indicating water and sewage line locations.
>
> Prepares and revises detail and design drawings for such projects as the construction and installation of electrical or electronic equipment, plant wiring, and the manufacture and assembly of printed circuit boards. Drawings typically include details of mountings, frames, guards, or other accessories; conduit layouts; or wiring diagrams indicating transformer sizes, conduit locations and mountings.

Drafter IV 2024

Prepares complete sets of complex drawings which include multiple views, detail drawings, and assembly drawings. Drawings include complex design features that require considerable drafting skill to visualize and portray. Assignments regularly require the use of mathematical formulas to draw land contours or to compute weights, center of gravity, load capacities, dimensions, quantities of material, etc. Works from sketches, models, and verbal information supplied by an engineer, architect, or designer to determine the most appropriate views, detail drawings, and supplementary information needed to complete assignments. Selects required information from precedents, manufacturers' catalogs, and technical guides. Independently resolves most of the problems encountered. Supervisor or design originator may suggest methods of approach or provide advice on unusually difficult problems. Typical assignments include:

> From layouts or sketches, prepares complete sets of drawings of test equipment to be manufactured. Several cross-sectional and subassembly drawings are required. From information supplied by the design originator and from technical handbooks and manuals, describes dimensions, tolerances, fits, fabrication techniques, and standard parts to use in manufacturing the equipment.
>
> From electronic schematics, information as to maximum size, and manuals giving dimensions of standard parts, determines the arrangement and prepares drawings of printed circuit boards.
>
> From precedents, drafting standards, and established practices, prepares final construction drawings for floodgates, navigation locks, dams, bridges, culverts, levees, channel excavations, dikes, and berms; prepares boring profiles, typical cross-sections, and land profiles; and delineates related topographical details as required.
>
> Prepares final drawings for street paving and widening or for water and sewer lines having complex trunk lines; reduces field notes and calculates true grades. From engineering designs, lays out plan, profile and detail appurtenances required; notifies supervisor of conflicting details in design.

Note: Excludes drafters performing work of similar difficulty to that described at this level but who provide support for a variety of organizations which have widely differing functions or requirements.

Drafter V 2025

Works closely with design originators, preparing drawings of unusual, complex, or original designs which require a high degree of precision. Performs unusually difficult assignments requiring considerable initiative, resourcefulness, and drafting expertise. Assures that anticipated problems in manufacture, assembly, installation, and operation are resolved by the drawings produced. Exercises independent judgment in selecting and interpreting data based on a knowledge of the design intent. Although working primarily as a drafter, may occasionally interpret general designs prepared by others to complete minor details. May provide advice and guidance to lower level drafters or serve as coordinator and planner for large and complex drafting projects.

Not classifiable by level 2029

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

COMPUTER OPERATOR

Monitors and operates the control console of either a mainframe digital computer or a group of minicomputers, in accordance with operating instructions, to process data. Work is characterized by the following:

- Studies operating instructions to determine equipment setup needed;
- Loads equipment with required items (tapes, cards, paper, etc.);
- Switches necessary auxiliary equipment into system;
- Starts and operates control console;
- Diagnoses and corrects equipment malfunctions;
- Reviews error messages and makes corrections during operation or refers problems;
- Maintains operating record.

May test run new or modified programs and assist in modifying systems or programs. Included within the scope of this definition are fully qualified computer operators, trainees working to become fully qualified operators, and lead operators providing technical assistance to lower level positions.

Excluded are:

a. workers operating small computer systems where there is little or no opportunity for operator intervention in program processing and few requirements to correct equipment malfunctions;

b. peripheral equipment operators and remote terminal or computer operators who do not run the control console of either a mainframe digital computer or a group of minicomputers; and

c. workers using the computer for scientific, technical, or mathematical work when a knowledge of the subject matter is required.

Computer Operator I 2851

Receives on-the-job training in operating the control console (sometimes augmented by classroom training). Works under close personal supervision and is provided detailed written or oral guidance before and during assignments. As instructed, resolves common operating problems. May serve as an assistant operator working under close supervision or performing a portion of a more senior operator's work.

Computer Operator II 2852

Processes scheduled routines which present few difficult operating problems (e.g., infrequent or easily resolved error conditions). In response to computer output instructions or error conditions, applies standard operating or corrective procedure. Refers problems which do not respond to preplanned procedure. May serve as an assistant operator, working under general supervision.

Computer Operator III 2853

Processes a range of scheduled routines. In addition to operating the system and resolving common error conditions, diagnoses and acts on machine stoppage and error conditions not fully covered by existing procedures and guidelines (e.g., resetting switches and other controls or making mechanical adjustments to maintain or restore equipment operations). In response to computer output instructions or error conditions, may deviate from standard procedures if standard procedures do not provide a solution. Refers problems which do not respond to corrective procedures.

Computer Operator IV 2854

Adapts to a variety of nonstandard problems which require extensive operator intervention (e.g., frequent introduction of new programs, applications, or procedures). In response to computer output instructions or error conditions, chooses or devises a course of action from among several alternatives and alters or deviates from standard procedures if standard procedures do not provide a solution (e.g, reassigning equipment in order to work around faulty equipment or transfer channels); then refers problems. Typically, completed work is submitted to users without supervisory review.

Computer Operator V 2855

Resolves a variety of difficult operating problems (e.g., making unusual equipment connections and rarely used equipment and channel configurations to direct processing through or around problems in equipment, circuits, or channels or reviewing test run requirements and developing unusual system configurations that will allow test programs to process without interfering with on-going job requirements). In response to computer output instructions and error conditions or to avoid loss of information or to conserve computer time, operator deviates from standard procedures. Such actions may materially alter the computer unit's production plans. May spend considerable time away from the control station providing technical assistance to lower level operators and assisting programmers, systems analysts, and subject matter specialists in resolving problems.

Computer Operator VI 2856

In addition to level V responsibilities, uses a knowledge of program language, computer features, and software systems to assist in: (1) maintaining, modifying, and developing operating systems or programs; (2) developing operating instructions and techniques to cover problem situations; and (3) switching to emergency backup procedures.

Not classifiable by level 2959

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PROTECTIVE SERVICE OCCUPATIONS

☞ CORRECTIONAL OFFICER 5100

Maintains order among inmates in a State prison or local jail. Performs routine duties in accordance with established policies, regulations, and procedures to guard and supervise inmates in cells, at meals, during recreation, and on work assignments. May, if necessary, employ weapons or force to maintain discipline and order. Typical duties include: Taking periodic inmate counts; searching inmates and cells for contraband articles; inspecting locks, window bars, grills, doors, and grates for tampering; aiding in prevention of escapes and taking part in searches for escaped inmates; and escorting inmates to and from different areas for questioning, medical treatment, work, and meals. May act as outside or wall guard, usually on rotation.

Excluded are:

a. Workers receiving on-the-job training in basic correctional officer activities; and

b. Positions responsible for providing counselling or rehabilitation services to inmates.

☞ FIREFIGHTER 5200

As a full-time paid member of the fire department, combats, extinguishes, and prevents fires and performs rescue operations in structural and airfield environments. Performs maintenance on own equipment and quarters. Wears protective clothing and breathing devices; drives fire and crash equipment; and operates a variety of firefighting equipment such as hoses, extinguishers, ladders and axes. May hold national certification as an Emergency Medical Technician.

Excluded are:

a. Fire academy cadets; and

b. Positions receiving additional compensation for driving and operating structural pumpers and crash vehicles.

☞ FIREFIGHTER CREW LEADER 5210

Coordinates the activities of firefighters assigned to a structural pumper or crash vehicle. Typically inspects vehicle and equipment, leads crew activities when training or responding to fire alarms, and assesses the proficiency of crew members.

Excluded are positions responsible for supervising multiple crews of firefighters.

☞ POLICE OFFICER

Enforces laws established for the protection of persons and property, by detaining, arresting, interrogating, and incarcerating suspected violators, and appearing as a witness at trials. Work is performed in uniform or civilian clothes and officers are typically armed.

Excluded are:

a. Supervisory positions;

b. Criminal investigators;

c. Police detectives performing duties above those described for Police Officer II;

d. Specialists having the same rank (or higher) as positions matched to Police Officer Supervisor;

e. Positions requiring the operation of an aircraft: and

f. Police academy cadets and positions receiving on-the-job training and experience in basic police activities.

Police Officer I 5301

Carries out general and specific assignments from superior officers in accordance with established rules and procedures. Maintains order, enforces laws and ordinances, and protects life and property in an assigned patrol district or beat by performing a combination of such duties as: patrolling a specific area on foot or in a vehicle; directing traffic; issuing traffic summonses; investigating accidents; apprehending and arresting suspects; processing prisoners; and protecting scenes of major crimes. May participate with detectives or investigators in conducting surveillance operations.

Police Officer II 5302

In addition to the basic police duties described at level I, receives additional compensation to specialize in one or more activities, such as: canine patrol; special reaction teams (e.g., special weapons assault team, special operations reaction team); juvenile cases; hostage negotiations; and participating in investigations (e.g., stakeout, surveillance) or other enforcement activities requiring specialized training and skills.

Not classifiable by level 5309

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

☞ POLICE OFFICER SUPERVISOR (SERGEANT) 5310

Serves as a first-line supervisor over police officers matched as Police Officer I. Duties include: Inspecting shift or post personnel, operations, and equipment; insuring compliance with departmental requirements and making routine decisions in accordance with established regulations and policies; observing police officers on post or patrol for efficiency and appearance and directing their work.

Excluded are positions typically responsible for supervising police officers performing duties above those described for Police Officer I.

GUARD

☞ Protects property from theft or damage, or persons from hazards or interference. Duties involve serving at a fixed post, making rounds on foot or by motorized vehicle, or escorting persons or property. May be deputized to make arrests. May also help visitors and customers by answering questions and giving directions. **May be required to demonstrate 1) proficiency in the use of firearms and other special weapons and 2) continuing physical fitness.**

☞ **Excluded are guards employed by establishments that provide protective services on a contract basis.**

Guard I 5401

Carries out instructions primarily oriented toward insuring that emergencies and security violations are readily discovered and reported to appropriate authority. Intervenes directly only in situations that require minimal action to safeguard property or persons. Duties require minimal training.

Guard II 5402

Enforces regulations designed to prevent breaches of security. Exercises judgment and uses discretion in dealing with emergencies and security violations encountered. Determines whether first response should be to intervene directly (asking for assistance when deemed necessary and time allows), to keep situation under surveillance, or to report situation so that it can be handled by appropriate authority. Duties require specialized training in methods and techniques of protecting security areas.

Not classifiable by level 5409

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

CLERICAL OCCUPATIONS

SECRETARY

Provides principal secretarial support in an office, usually to one individual, and, in some cases, also to the subordinate staff of that individual. Maintains a close and highly responsive relationship to the day-to-day activities of the supervisor and staff. Works fairly independently receiving a minimum of detailed supervision and guidance. Performs varied clerical and secretarial duties requiring a knowledge of office routine and an understanding of the organization, programs, and procedures related to the work of the office.

Exclusions. Not all positions titled "secretary" possess the above characteristics. Examples of positions which are excluded from the definition are as follows:

a. clerks or secretaries working under the direction of secretaries or administrative assistants as described in e;

b. stenographers not fully performing secretarial duties;

c. stenographers or secretaries assigned to two or more professional, technical, or managerial persons of equivalent rank;

d. assistants or secretaries performing any kind of technical work, e.g., personnel, accounting, or legal work;

e. administrative assistants or supervisors performing duties which are more difficult or more responsible than the secretarial work described in LR-1 through LR-4;

f. secretaries receiving additional pay primarily for maintaining confidentiality of payroll records or other sensitive information;

g. secretaries performing routine receptionist, typing, and filing duties following detailed instructions and guidelines; these duties are less responsible than those described in LR-1 below; and

h. trainees.

Classification by level

Secretary jobs which meet the required characteristics are matched at one of five levels according to two factors: (a) level of the secretary's supervisor within the overall organizational structure, and (b) level of the secretary's responsibility. The table following the explanations of these factors indicates the level of the secretary for each combination of factors.

LEVEL OF SECRETARY'S SUPERVISOR (LS)

Secretaries should be matched at one of the three LS levels below best describing the organization of the secretary's supervisor.

LS-1 Organizational structure is not complex and internal procedures and administrative controls are simple and informal; supervisor directs staff through face-to-face meetings.

LS-2 Organizational structure is complex and is divided into subordinate groups that usually differ from each other as to subject-matter, function etc.; supervisor usually directs staff through intermediate supervisors; and internal procedures and administrative controls are formal. An entire organization (e.g., division, subsidiary, or parent organization) may contain a variety of subordinate groups which meet the LS-2 definition. Therefore, it is not unusual for one LS-2 supervisor to report to another LS-2 supervisor.

The presence of subordinate supervisors does not by itself mean LS-2 applies, e.g., a clerical processing organization divided into several units, each performing very similar work is placed in LS-1.

In smaller organizations or industries such as retail trade, with relatively few organizational levels, the supervisor may have an impact on the policies and major programs of the entire organization, and may deal with important outside contacts, as described in LS-3.

LS-3 Organizational structure is divided into two or more subordinate supervisory levels (of which at least one is a managerial level) with several subdivisions at each level. Executive's program(s) are usually inter-locked on a direct and continuing basis with other major organizational segments, requiring constant attention to extensive formal coordination, clearances, and procedural controls. Executive typically has: financial decision making authority for assigned program(s); considerable impact on the entire organization's financial position or public image; and responsibility for, or has staff specialists in, such areas as personnel and administration for assigned organization. Executive plays an important role in determining the policies and major programs of the entire organization, and spends considerable time dealing with outside parties actively interested in assigned program(s) and current or controversial issues.

LEVEL OF SECRETARY'S RESPONSIBILITY (LR)

This factor evaluates the nature of the work relationship between the secretary and the supervisor or staff, and the extent to which the secretary is expected to exercise initiative and judgment. Secretaries should be matched at the level best describing their level of responsibility. When the position's duties span more than one LR level, the introductory paragraph at the beginning of each LR level should be used to determine which of the levels best matches the position. (Typically, secretaries performing at the higher levels of responsibility also perform duties described at the lower levels.)

LR-1 Carries out recurring office procedures independently. Selects the guideline or reference which fits the specific case. Supervisor provides specific instructions on new assignments and checks completed work for accuracy. Performs varied duties including or comparable to the following:

a. Responds to routine telephone requests which have standard answers; refers calls and visitors to appropriate staff. Controls mail and assures timely staff response; may send form letters.

b. As instructed, maintains supervisor's calendar, makes appointments, and arranges for meeting rooms.

c. Reviews materials prepared for supervisor's approval for typographical accuracy and proper format.

d. Maintains recurring internal reports, such as: time and leave records, office equipment listings, correspondence controls, training plans, etc.

e. Requisitions supplies, printing, maintenance, or other services. Types, takes and transcribes dictation, and establishes and maintains office files.

LR-2 Handles differing situations, problems, and deviations in the work of the office according to the supervisor's general instructions, priorities, duties, policies, and program goals. Supervisor may assist secretary with special assignments. Duties include or are comparable to the following:

a. Screens telephone calls, visitors, and incoming correspondence; personally responds to requests for information concerning office procedures; determines which requests should be handled by the supervisor, appropriate staff member, or other offices. May prepare and sign routine, non-technical correspondence in own or supervisor's name.

b. Schedules tentative appointments without prior clearance. Makes arrangements for conferences and meetings and assembles established background materials, as directed. May attend meetings and record and report on the proceedings.

c. Reviews outgoing materials and correspondence for internal consistency and conformance with supervisor's procedures; assures that proper clearances have been obtained, when needed.

d. Collects information from the files or staff for routine inquires on office program(s) or periodic reports. Refers nonroutine requests to supervisor or staff.

e. Explains to subordinate staff supervisor's requirements concerning office procedures. Coordinates personnel and administrative forms for the office and forwards for processing.

LR-3 Uses greater judgment and initiative to determine the approach or action to take in nonroutine situations. Interprets and adapts guidelines, including unwritten policies, precedents, and practices, which are not always completely applicable to changing situations. Duties include or are comparable to the following:

a. Based on a knowledge of the supervisor's views, composes correspondence on own initiative about administrative matters and general office policies for supervisor's approval.

b. Anticipates and prepares materials needed by the supervisor for conferences, correspondence, appointments, meetings, telephone calls, etc., and informs supervisor on matters to be considered.

c. Reads publications, regulations, and directives and takes action or refers those that are important to the supervisor and staff.

d. Prepares special or one-time reports, summaries, or replies to inquires, selecting relevant information from a variety of sources such as reports, documents, correspondence, other offices, etc., under general direction.

e. Advises secretaries in subordinate offices on new procedures; requests information needed from the subordinate office(s) for periodic or special conferences, reports, inquires, etc. Shifts clerical staff to accommodate work load needs.

LR-4 Handles a wide variety of situations and conflicts involving the clerical or administrative functions of the office which often cannot be brought to the attention of the executive. The executive sets the overall objectives of the work. Secretary may participate in developing the work deadlines. Duties include or are comparable to the following:

a. Composes correspondence requiring some understanding of technical matters; may sign for executive when technical or policy content has been authorized.

b. Notes commitments made by executive during meetings and arranges for staff implementation. On own initiative, arranges for staff member to represent organization at conferences and meetings, establishes appointment priorities, or reschedules or refuses appointments or invitations.

c. Reads outgoing correspondence for executive's approval and alerts writers to any conflict with the file or departure from policies or executive's viewpoints; gives advice to resolve the problems.

d. Summarizes the content of incoming materials, specially gathered information, or meetings to assist executive; coordinates the new information with background office sources; draws attention to important parts or conflicts.

e. In the executive's absence, ensures that requests for action or information are relayed to the appropriate staff member; as needed, interprets request and helps implement action; makes sure that information is furnished in timely manner; decides whether executive should be notified of important or emergency matters.

Exclude secretaries performing any of the following duties:

a. Acts as office manager for the executive's organization, e.g., determines when new procedures are needed for changing situations and devises and implements alternatives; revises or clarifies procedures to eliminate conflict or duplication; identifies and resolves various problems that affect the orderly flow of work in transactions with parties outside the organization.

b. Prepares agenda for conferences; explains discussion topics to participants; drafts introductions and develops background information and prepares outlines for executive or staff member(s) to use in writing speeches.

c. Advises individuals outside the organization on the executive's views on major policies or current issues facing the organization; contacts or responds to contacts from high-ranking outside officials (e.g., city or State officials, Member of Congress, presidents of national unions or large national or international firms, etc.) in unique situations. These officials may be relatively inaccessible, and each contact typically must be handled differently, using judgment and discretion.

CRITERIA FOR MATCHING SECRETARIES BY LEVEL

Level of Secretary's Supervisor	Level of Secretary's Responsibility			
	LR-1	LR-2	LR-3	LR-4
LS-1	I*(1141)	II(1142)	III(1143)	IV(1144)
LS-2	I*(1141)	III(1143)	IV(1144)	V(1145)
LS-3	I*(1141)	IV(1144)	V(1145)	V(1145)

*Regardless of LS Level.

Not classifiable by level 1149

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

TYPIST

Uses a manual, electric, or automatic typewriter to type various materials. Included are automatic typewriters that are used only to record text and update and reproduce previously typed items from magnetic cards or tape. May include typing of stencils, mats, or similar materials for use in duplicating processes. May do clerical work involving little special training, such as keeping simple records, filing records and reports, or sorting and distributing incoming mail.

Excluded from this definition is work that involves:

a. Typing directly from spoken material that has been recorded on discs, cylinders, belts, tapes, or other similar media;

b. The use of varitype machines, composing equipment, or automatic equipment in preparing material for printing; and

c. Familiarity with specialized terminology in various keyboard commands to manipulate or edit the recorded text to accomplish revisions, or to perform tasks such as extracting and listing items from the text, or transmitting text to other terminals, or using "sort" commands to have the machine reorder material. Typically requires the use of automatic equipment which may be either computer linked or have a programmable memory so that material can be organized in regularly used formats or performed paragraphs which can then be coded and stored for future use in letters or documents.

Typist I 1221

Performs one or more of the following: copy typing from rough or clear drafts; routine typing of forms, insurance policies, etc; setting up simple standard tabulations; or copying more complex tables already set up and spaced properly.

Typist II 1222

Performs one or more of the following: typing material in final form when it involves combining material from several sources; or responsibility for correct spelling, syllabication, punctuation, etc., of technical or unusual words or foreign language materials; or planning layout and typing of complicated statistical tables to maintain uniformity and balance in spacing. May type routine form letters, varying details to suit circumstances.

Not classifiable by level 1229

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

WORD PROCESSOR

Uses automated systems, such as word processing equipment, or personal computers or work stations linked to a larger computer or local area network, to produce a variety of documents, such as correspondence, memos, publications, forms, reports, tables and graphs. Uses one or more word processing software packages. May also perform routine clerical tasks, such as operating copiers, filing, answering telephones, and sorting and distributing mail.

Excluded are:

a. Typists using automatic or manual typewriters with limited or no text-editing capabilities; workers in these positions are not typically required to use word processing software packages;

b. Key entry operators, accounting clerks, inventory control clerks, sales clerks, supply clerks, and other clerks who may use automated word processing equipment for purposes other than typing composition; and

c. Positions requiring subject-matter knowledge to prepare and edit text using automated word processing equipment.

Word Processor I 1231

Produces a variety of standard documents, such as correspondence, form letters, reports, tables and other printed materials. Work requires skill in typing; a knowledge of grammar, punctuation, and spelling; and ability to use reference guides and equipment manuals. Performs familiar, routine assignments following standard procedures. Seeks further instructions for assignments requiring deviations from established procedures.

Word Processor II 1232

Uses a knowledge of varied and advanced functions of one software type, a knowledge of varied functions of different types of software, or a knowledge of specialized or technical terminology to perform such typical duties as:

- Editing and reformatting written or electronic drafts. Examples include: Correcting function codes; adjusting spacing and formatting; and standardizing headings, margins, and indentations.

- Transcribing scientific reports, lab analyses, legal proceedings, or similar material from voice tapes or handwritten drafts. Work requires knowledge of specialized, technical, or scientific terminology.

Work requires familiarity with office terminology and practices; incumbent corrects copy and questions originator of document concerning missing information, improper formatting, or discrepancies in instructions. Supervisor sets priorities and deadlines on continuing assignments, furnishes general instructions for recurring work, and provides specific instructions for new or unique projects. May lead lower level word processors.

Word Processor III 1233

Requires both a comprehensive knowledge of word processing software applications and office practices and a high degree of skill in applying software functions to prepare complex and detailed documents. For example, processes complex and lengthy technical reports which include tables, graphs, charts, or multiple columns. Uses either different word processing packages or many different style macros or special command functions. Independently completes assignments and resolves problems.

Not classifiable by level 1239

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

WORD PROCESSOR SUPERVISOR

Supervises three or more word processors but not more than a total of six workers, including other clerical positions. Staff supervised must include at least two level II or two level III word processors. (See the supervisory levels below and the separate descriptions for nonsupervisory Word Processors.) May also perform word processing.

Excluded are:

☞ a. Second level word processor supervisors; supervisors of fewer than three word processors or more than six clerical workers including word processors; and supervisors of fewer than two word processors above level I; and

b. Positions requiring subject-matter knowledge to prepare and edit text using automated word processing equipment.

Word Processor Supervisor I 1241

Supervises at least three word processors and no more than six clerical staff. At least two of the word processors supervised must perform at level II and no more than one can ☞ match at level III. Duties include: Planning work schedules and setting priorities and deadlines; assigning and reviewing work; informally recommending promotions, reassignments or other personnel actions; referring disciplinary problems to higher level supervisor; approving leave requests; preparing performance evaluations; and directing on-the-job training.

Word Processor Supervisor II 1242

Supervises at least three word processors and no more than six clerical staff. At least two of the word processors supervised must perform at level III. Duties are the same as those described for Word Processor Supervisor I.

Not classifiable by level 1249

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

KEY ENTRY OPERATOR

Operates keyboard-controlled data entry device such as keypunch machine or key-operated magnetic tape or disc encoder to transcribe data into a form suitable for computer processing. Work requires skill in operating an alphanumeric keyboard and an understanding of transcribing procedures and relevant data entry equipment.

Positions are classified into levels on the basis of the following definitions:

Key Entry Operator I 1121

Work is routine and repetitive. Under close supervision or following specific procedures or detailed instructions, works from various standardized source documents which have been coded and require little or no selecting, coding, or interpreting of data to be entered. Refers to supervisor problems arising from erroneous items, codes, or missing information.

Key Entry Operator II 1122

Work requires the application of experience and judgment in selecting procedures to be followed and in searching for, interpreting, selecting, or coding items to be entered from a variety of source documents. On occasion may also perform routine work as described for level I.

NOTE: Excluded are operators above level II using the key entry controls to access, read, and evaluate the substance of specific records to take substantive actions, or to make entries requiring a similar level of knowledge.

Not classifiable by level 1129

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

ACCOUNTING CLERK

Performs one or more accounting tasks, such as posting to registers and ledgers; balancing and reconciling accounts; verifying the internal consistency, completeness, and mathematical accuracy of accounting documents; assigning prescribed accounting distribution codes; examining and verifying the clerical accuracy of various types of reports, lists, calculations, postings, etc.; preparing journal vouchers; or making entries or adjustments to accounts.

Levels I and II require a basic knowledge of routine clerical methods and office practices and procedures as they relate to the clerical processing and recording of transactions and accounting information. Levels III and IV require a knowledge and understanding of the established and standardized bookkeeping and accounting procedures and techniques used in an accounting system, or a segment of an accounting system, where there are few variations in the types of transactions handled. In addition, some jobs at each level may require a basic knowledge and understanding of the terminology, codes, and processes used in an automated accounting system.

Accounting Clerk I 1061

Performs very simple and routine accounting clerical operations, for example, recognizing and comparing easily identified numbers and codes on similar and repetitive accounting documents, verifying mathematical accuracy, and identifying discrepancies and bringing them to the supervisor's attention. Supervisor gives clear and detailed instructions for specific assignments. Employee refers to supervisor all matters not covered by instructions. Work is closely controlled and reviewed in detail for accuracy, adequacy, and adherence to instructions.

Accounting Clerk II 1062

Performs one or more routine accounting clerical operations, such as: examining, verifying, and correcting accounting transactions to ensure completeness and accuracy of data and proper identification of accounts, and checking that expenditures will not exceed obligations in specified accounts; totaling, balancing, and reconciling collection vouchers; posting data to transaction sheets where employee identifies proper accounts and items to be posted; and coding documents in accordance with a chart (listing) of accounts. Employee follows specific and detailed accounting procedures. Completed work is reviewed for accuracy and compliance with procedures.

Accounting Clerk III 1063

Uses a knowledge of double entry bookkeeping in performing one or more of the following: posts actions to journals, identifying subsidiary accounts affected and debit and credit entries to be made and assigning proper codes; reviews computer printouts against manually maintained journals, detecting and correcting erroneous postings, and preparing documents to adjust accounting classifications and other data; or reviews lists of transactions rejected by an automated system, determining reasons for rejections, and preparing necessary correcting material. On routine assignments, employee selects and applies established procedures and techniques. Detailed instructions are provided for difficult or unusual assignments. Completed work and methods used are reviewed for technical accuracy.

Accounting Clerk IV 1064

Maintains journals or subsidiary ledgers of an accounting system and balances and reconciles accounts. Typical duties include one or both of the following: reviews invoices and statements (verifying information, ensuring sufficient funds have been obligated, and if questionable, resolving with the submitting unit, determining accounts involved, coding transactions, and processing material through data processing for application in the accounting system); and/or analyzes and reconciles computer printouts with operating unit reports (contacting units and researching causes of discrepancies, and taking action to ensure that accounts balance). Employee resolves problems in recurring assignments in accordance with previous training and experience. Supervisor provides suggestions for handling unusual or nonrecurring transactions. Conformance with requirements and technical soundness of completed work are reviewed by the supervisor or are controlled by mechanisms built into the accounting system.

NOTE: Excluded from level IV are positions responsible for maintaining either a general ledger or a general ledger in combination with subsidiary accounts.

Not classifiable by level 1069

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PAYROLL CLERK 1100

Performs the clerical tasks necessary to process payrolls and to maintain payroll records. Work involves most of the following: Processing workers' time or records for changes in wage rates, supplementary benefits, or tax deductions; editing payroll listings against source records; tracing and correcting errors in listings; and assisting in preparation of periodic summary payroll reports. In a nonautomated payroll system, computes wages. Work may require a practical knowledge of governmental regulations, company payroll policy, or the computer system for processing payrolls.

FILE CLERK

Files, classifies, and retrieves material in an established filing system. May perform clerical and manual tasks required to maintain files. Positions are classified into levels on the basis of the following definitions.

File Clerk I 1071

Performs routine filing of material that has already been classified or which is easily classified in a simple serial classification system (e.g., alphabetical, chronological, or numerical). As requested, locates readily available material in files and forwards material; may fill out withdrawal charge. May perform simple clerical and manual tasks required to maintain and service files.

File Clerk II 1072

Sorts, codes, and files unclassified material by simple (subject matter) headings or partly classified material by finer subheadings. Prepares simple related index and cross-reference aids. As requested, locates clearly identified material in files and forwards material. May perform related clerical tasks required to maintain and service files.

OR

In hospitals or health maintenance organizations, independently enters or retrieves medical data or employee records using an established computerized filing system. The files are typically classified following a simple serial system similar to that described at level I.

File Clerk III 1073

Classifies and indexes file material such as correspondence, reports, technical documents, etc., in an established filing system containing a number of varied subject matter files. May also file this material. May also keep records of various types in conjunction with the files. May lead a small group of lower level file clerks.

Not classifiable by level 1079

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

MESSENGER 1130

Performs various routine duties such as running errands, operating minor office machines such as sealers or mailers, opening mail, distributing mail on a regularly scheduled route, and other minor clerical work. May deliver mail that requires some special handling, e.g., mail that is insured, registered, or marked for special delivery.

Excluded are positions which include any of the following as significant duties:

a. Operating motor vehicles;

b. Delivering valuables or security-classified mail when the work requires a continuing knowledge of special procedures for handling such items;

c. Weighing mail, determining postage, or recording and controlling registered, insured, and certified mail in the mail room;

d. Making deliveries to unfamiliar or widely separated buildings or points which are not part of an established route; or

e. Directing other workers.

ORDER CLERK

Receives written or verbal customers' purchase orders for material or merchandise from customers or sales people. Work typically involves some combination of the following duties: Quoting prices; determining availability of ordered items and suggesting substitutes when necessary; advising expected delivery date and method of delivery; recording order and customer information on order sheets; checking order sheets for accuracy and adequacy of information recorded; ascertaining credit rating of customer; furnishing customer with acknowledgment of receipt of order; following up to see that order is delivered by the specified date or to let customer know of a delay in delivery; maintaining order file; checking shipping invoice against original order. Exclude workers paid on a commission basis or whose duties include any of the following: Receiving orders for services rather than for material or merchandise; providing customers with consultative advice using knowledge gained from engineering or extensive technical training; emphasizing selling skills; handling material or merchandise as an integral part of the job.

Positions are classified into levels according to the following definitions:

Order Clerk I 1091

Handles orders involving items which have readily identified uses and applications. May refer to a catalog, manufacturer's manual, or similar document to insure that proper item is supplied or to verify price of ordered item.

Order Clerk II 1092

Handles orders that involve making judgments such as choosing which specific product or material from the establishment's product lines will satisfy the customer's needs, or determining the price to be quoted when pricing involves more than merely referring to a price list or making some simple mathematical calculations.

Not classifiable by level 1099

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

RECEPTIONIST 1160

Greets visitors, determines nature of visits, and directs visitors to appropriate persons. Receptionist duties may also include providing information, making appointments, answering a telephone (other than switchboard or console), keeping a log of visitors, and issuing visitor passes. May also perform typing or other routine clerical duties which may occupy a major portion of time, and are usually performed at the reception desk.

This classification excludes workers operating a telephone switchboard or console, performing guard duties, or performing more difficult clerical duties.

SWITCHBOARD OPERATOR 1170

Operates a telephone switchboard or console used with a private branch exchange (PBX) system to relay incoming, outgoing, and intrasystem calls. May provide information to callers, record and transmit messages, keep record of calls placed and toll charges. Besides operating a telephone switchboard or console, may also type or perform routine clerical work (typing or routine clerical work may occupy the major portion of the worker's time, and is usually performed while at the switchboard or console). Chief or lead operators in establishments employing more than one operator are excluded. For an operator who acts as a receptionist, see Switchboard operator-receptionist.

SWITCHBOARD OPERATOR-RECEPTIONIST 1180

At a single-position telephone switchboard or console, acts both as an operator--see Switchboard Operator--and as a receptionist. Receptionist's work involves such duties as greeting visitors; determining nature of visitor's business and providing appropriate information; referring visitor to appropriate person in the organization or contacting that person by telephone and arranging an appointment; keeping a log of visitors.

PERSONNEL CLERK/ASSISTANT (Employment)

Personnel clerks/assistants (employment) provide clerical and technical support to personnel professionals or managers in internal matters relating to recruiting, hiring, transfer, change in pay status, and termination of employees. At the lower levels, clerks/assistants primarily provide basic information to current and prospective employees, maintain personnel records and information listings, and prepare and process papers on personnel actions (hires, transfers, changes in pay, etc.). At the higher levels, clerks/assistants (often titled personnel assistants or specialists) may perform limited aspects of a personnel professional's work, e.g., interviewing candidates, recommending placements, and preparing personnel reports. Final decisions on personnel actions are made by personnel professionals or managers. Some clerks/assistants may perform a limited amount of work in other specialties, such as benefits, compensation, or employee relations. Typing may be required at any level.

Excluded are:

a. workers who primarily compute and process payrolls or compute and/or respond to questions on benefits or retirement claims;

b. workers who receive additional pay primarily for maintaining and safeguarding personnel record files;

c. workers whose duties do not require a knowledge of personnel rules and procedures, such as receptionists, messengers, typists, or stenographers;

d. workers in positions requiring a bachelor's degree; and

e. workers who are primarily compensated for duties outside the employment specialty, such as benefits, compensation, or employee relations.

Positions are classified into levels on the basis of the following definitions. The work described is essentially at a responsible clerical level at the low levels and progresses to a staff assistant or technician level. At level III, which is transitional, both types of work are described. Jobs which match either type of work described at level III, or which are combinations of the two, can be matched.

Personnel Clerk/Assistant (Employment) I 1311

Performs routine tasks which require a knowledge of personnel procedures and rules, such as: providing simple employment information and appropriate lists and forms to applicants or employees on types of jobs being filled, procedures to follow, and where to obtain additional information; ensuring that the proper forms are completed for name changes, locator information, applications, etc. and reviewing completed forms for signatures and proper entries; or maintaining personnel records, contacting appropriate sources to secure any missing items, and posting items such as dates of promotions, transfer, and hire, or rates of pay or personal data. (If this information is computerized, skill in coding or entering information may be needed as a minor duty.) May answer outside inquiries for simple factual information, such as verification of dates of employment in response to telephone credit checks on employees. Some receptionist or other clerical duties may be performed. May be assigned work to provide training for a higher level position.

Detailed rules and procedures are available for all assignments. Guidance and assistance on unusual questions are available at all times. Work is spot checked, often on a daily basis.

Personnel Clerk/Assistant (Employment) II 1312

Examines and/or processes personnel action documents using experience in applying personnel procedures and policies. Ensures that information is complete and consistent and determines whether further discussion with applicants or employees is needed or whether personnel information must be checked against additional files or listings. Selects appropriate precedents, rules, or procedures from a number of alternatives. Responds to varied questions from applicants, employees, or managers for readily available information which can be obtained from file material or manuals; responses require skill to secure cooperation in correcting improperly completed personnel documents or to explain regulations and procedures. May provide information to managers on availability of applicants and status of hiring actions; may verify employment dates and places supplied on job applications; may maintain personnel records; and may administer typing and stenography tests.

Completes routine assignments independently. Detailed guidance is available for situations which deviate from established precedents. Clerks/assistants are relied upon to alert higher level clerks/assistants or supervisor to such situations. Work may be spot checked periodically.

Personnel Clerk/Assistant (Employment) III 1313

Type A

Serves as a clerical expert in independently processing the most complicated types of personnel actions, e.g., temporary employment, rehires, and dismissals and in providing information when it is necessary to consolidate data from a number of sources, often with short deadlines. Screens applications for obvious rejections. Resolves conflicts in computer listings or other sources of employee information. Locates lost documents or reconstructs information using a number of sources. May check references of applicants when information in addition to dates and places of past work is needed, and judgment is required to ask appropriate routine follow-up questions. May provide guidance to lower level clerks. Supervisory review is similar to level II.

AND/OR

Type B

Performs routine personnel assignments beyond the clerical level, such as: orienting new employees to programs, facilities, rules on time and attendance, and leave policies; computing basic statistical information for reports on manpower profiles, EEO progress and accomplishments, hiring activities, attendance and leave profiles, turnover, etc.; and screening applicants for well-defined positions, rejecting those who do not qualify for available openings for clear cut reasons, referring others to appropriate employment interviewer. Guidance is provided on possible sources of information, methods of work, and types of reports needed. Completed written work receives close technical review from higher level personnel office employees; other work may be checked occasionally.

Personnel Clerk/Assistant (Employment) IV 1314

Performs work in support of personnel professionals which requires a good working knowledge of personnel procedures, guides, and precedents. In representative assignments: interviews applicants, obtains references, and recommends placement of applicants in a few well-defined occupations (trades or clerical) within a stable organization or unit; conducts post-placement or exit interviews to identify job adjustment problems or reasons for leaving the organization; performs routine statistical analyses related to manpower, EEO, hiring, or other employment concerns, e.g., compares one set of data to another set as instructed; and requisitions applicants through employment agencies for clerical or blue-collar jobs. At this level, assistants typically have a range of personal contacts within and outside the organization and with applicants, and must be tactful and articulate. May perform some clerical work in addition to the above duties. Supervisor reviews completed work against stated objectives.

Personnel Clerk/Assistant (Employment) V 1315

Workers at this level perform duties similar to level IV, but are responsible for more complicated cases and work with greater independence. Performs limited aspects of professional personnel work dealing with a variety of occupations common to the organization which are clear-cut and stable in employment requirements. Typical duties include: researching recruitment sources, such as employment agencies or state manpower offices, and advising managers on the availability of candidates in common occupations; screening and selecting employees for a few routine, nonpermanent jobs, such as summer employment; or answering inquiries on a controversial issue, such as a hiring or promotion freeze. These duties often require considerable skill and diplomacy in communications. Other typical duties may include: surveying managers for future hiring requirements; developing newspaper vacancy announcements or explaining job requirements to employment agencies for administrative or professional positions; or reviewing the effect of organization wide personnel procedural changes on local employment programs (e.g., automation of records, new affirmative action goals). May incidentally perform some clerical duties. Supervisory review is similar to level IV.

Not classifiable by level 1319

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

PURCHASING CLERK/ASSISTANT

Provides clerical or technical support to buyers or contract specialists who deal with suppliers, vendors, contractors, etc., outside the organization to purchase goods, materials, equipment, services, etc. Clerks/assistants at level I prepare and process purchase documents, such as purchase orders, invitations to bid, contracts, and supporting papers. Clerks/assistants at level II also examine, review, verify, and control these documents to assure accuracy, correctness, and correct processing. Clerks/assistants at levels III and IV may also expedite purchases already made, by contacting vendors and analyzing and recommending reactions to supplier problems related to delivery, availability of goods, or any other part of the purchase agreement. Clerks/assistants at level IV may also develop technical information for buyers, e.g., comparative information on materials sought.

All assignments require a practical knowledge of internal purchasing procedures and operations. Assignments above level I require experience in applying regulations, guidelines, or manuals to specific transactions. Clerks/assistants may type purchasing documents or perform work described at lower levels, as needed. Final decisions on purchasing transactions are made by buyers, contract specialists, or supervisors.

Excluded are:

a. typists, file clerks, general clerks, secretaries, receptionists, and trainees not required to have a knowledge of internal purchasing procedures and operations;

b. workers who process or expedite the purchase of items for direct sale, either wholesale or retail;

c. workers who as a primary duty: maintain a filing system or listing to monitor inventory levels; reorder items by phone under ongoing contracts; or receive and disburse supplies and materials for use in the organization;

d. production expediters or controllers who primarily ensure the timely arrival and coordination of purchased materials with assembly line or production schedules and requirements;

e. purchasing expediters who only check on the status of purchases already made and who do not analyze the facts at hand and do not make recommendations for either extension of delivery dates or for other similar modifications to the purchase agreement, as described at level III, b;

f. positions which require a technical knowledge of equipment characteristics and parts, production control, or manufacturing methods and procedures;

g. positions requiring a bachelor's degree; and

h. buyers.

Positions are classified into levels based on the following definitions according to the complexity of the work, the condition of the purchase, and the amount of supervision.

Purchasing Clerk/Assistant I — 1321

Following well established and clear-cut procedures and instructions, prepares and processes documents such as purchase orders, invitations to bid, contracts, and supporting papers. Enters such prescribed information as quantities, model numbers, addresses and prices, after a higher level employee screens the requisition for completeness and accuracy. Posts data from requisitions to internal controls. Work requires a knowledge of proper terminology (including spelling and abbreviations) and some judgment in selecting the appropriate procedure or precedent for each transaction. Contacts are usually limited to the supervisor and the immediate work unit. Receives step-by-step instruction on new assignments. Refer questions to supervisor who may spot check work on a daily basis.

Purchasing Clerk/Assistant II — 1322

According to detailed procedures or regulations, examines documents such as requisitions, purchase orders, invitations to bid, contracts, and supporting papers. Reviews purchase requisitions to determine that correct item descriptions, prices, quantities, discount terms, shipping instructions, and/or delivery terms have been included and selects appropriate purchase phrases and forms from prescribed lists or files. Obtains any missing or corrected information and prepares purchase orders for supervisory approval. Contacts are usually within the organization to verify or correct factual information. May contact vendors for information about purchases already made and may reorder items under routine and existing purchase arrangements where few, if any, questions arise. Receives detailed instructions on new assignments. Refers questions to supervisor who may spot check work on a daily basis.

Clerks or assistants at this level examine documents for orders of standard goods, supplies, equipment or services, and/or for orders of specialized items when the complexity of the item does not affect the assistant's work, i.e., the assistant is not required to use considerable judgment to find a previous transaction to use as a guideline, as described at level III, a.

Purchasing Clerk/Assistant III — 1323

Assistants at this level perform assignments described in paragraphs a or b, or a combination of the two.

a. Reviews and prepares purchase documents for specialized items, such as items with optional features or technical equipment requiring precise specifications. Since the transactions usually require special purchasing conditions, e.g., multiple deliveries, provision of spare parts, or renegotiation terms, considerable judgment is needed to find previous transactions to use as guidelines; as required, adapts phrases or clauses in guideline transactions that apply to the purchase at hand.

May review purchasing documents prepared by lower level clerks or by personnel in other organization units to detect processing discrepancies or to clarify documents. May advise employees on how to prepare requisitions for items to be ordered.

b. Expedites purchases by making recommendations for action based on simple analyses of the facts at hand, organization guidelines, and the background of the purchase: contacts suppliers to obtain information on deliveries or on contracts; based on clear-cut guidelines for each type of purchase and previous performance of suppliers, availability of item, or impact of delay, recommends extension of delivery date or other similar modifications. May decide to refer problems to production, packaging, or other organization specialists. May reorder standard items under a variety of existing purchase agreements where judgment is needed to ask further questions and to follow-up and coordinate transactions.

Expediters at this level facilitate purchases of standard goods, supplies, equipment, or services, and/or purchases of specialized items when the complexity of the item does not affect the assistant's work, i.e., the assistant does not coordinate requests for minor deviations from contract specifications, etc., as described at level IV, b.

Clerks or assistants at this level coordinate information with buyers and outside suppliers and keep others informed of the progress of transactions. Major changes in regulations and procedures are explained by the supervisor. Unusual situations are referred to the supervisor who also spot checks completed work for adequacy.

Purchasing Clerk/Assistant IV 1324

Assistants at this level have a good understanding of purchase circumstances for specialized items--what to buy, where to buy, and under what terms buyers negotiate and make purchases. They perform assignments described in paragraphs a, b, or c, or a combination of any of these.

a. Reviews and prepares purchase documents for highly specialized items where few precedent transactions exist that can be used as guidelines and where provisions such as fixed-price contracts with escalation, price redetermination, or cost incentives clauses are needed. Complicated provisions for progress payments, for testing and evaluating ordered items, or for meeting production schedules may also exist. As necessary, drafts special clauses, terms, or requirements for unusual purchases. Provides authoritative information to others on purchasing procedures and assures that documents and transactions agree with basic procurement policies.

b. Expedites purchases of specialized items when the complexity of the items does affect the assistant's work (see level III, b.). Investigates supplier problems and coordinates requests for minor deviations from the contract specifications with specialists, buyers, suppliers, and users. Recommends revisions to contracts or purchase agreements, if needed, based upon organization requirements. May reorder technical and specialized items within existing purchase contracts which contain special purchasing conditions. Questions which arise are handled similarly to those in level III, b.

c. Furnishes technical support to buyers or contract specialists, using a detailed knowledge of internal purchasing transactions and procedures, e.g., analyzes bids for contracts to determine the possible number and interest of bidders for standard commodities and services; assembles contracts and drafts special clauses, terms or requirements for unprecedented purchases, e.g., for specially designed equipment or for complex one-time transactions; gathers and summarizes information on the availability of special equipment and the ability of suppliers to meet the organization's needs.

Assistants at this level seek guidance on highly unusual problems but are expected to propose solutions for supervisory approval. Instructions are provided on new procurement policies. Supervisory review is similar to level III; drafts of special clauses, etc., are reviewed in detail.

NOTE: Positions above level IV are excluded. Workers in such positions either (1) negotiate agreements with contractors on minor changes in the terms of established contracts; or (2) analyze and make recommendations about proposals concerning specialized equipment, about the solvency performance of supplying firms, or about clerical processing methods needed to fit new purchasing policies.

Not classifiable by level 1329

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

GENERAL CLERK

Performs a combination of clerical tasks to support office, business or administrative operations, such as: maintaining records; receiving, preparing, or verifying documents; searching for and compiling information and data; responding to routine requests with standard answers (by phone, in person, or by correspondence). The work requires a basic knowledge of proper office procedures. Workers at levels I, II, and III follow prescribed procedures or steps to process paperwork; they may perform other routine office support work, (e.g., typing, filing, or operating a keyboard controlled data entry device to transcribe data into a form suitable for data processing). Workers at level IV are also required to make decisions about the adequacy and content of transactions handled in addition to following proper procedures.

Clerical work is controlled (e.g., through spot checks, complete review, or subsequent processing) for both quantity and quality. Supervisors (or other employees) are available to assist and advise clerks on difficult problems and to approve their suggestions for significant deviations from existing instructions.

Excluded from this definition are: workers whose pay is primarily based on the performance of a single clerical duty such as typing, stenography, office machine operation, or filing; and other workers, such as secretaries, messengers, receptionists or public information specialists who perform general clerical tasks incidental to their primary duties.

General Clerk I 1331

Follows a few clearly detailed procedures in performing simple repetitive tasks in the same sequence, such as filing precoded documents in a chronological file or operating office equipment, e.g., mimeograph, photocopy, addressograph or mailing machine.

General Clerk II 1332

Follows a number of specific procedures in completing several repetitive clerical steps performed in a prescribed or slightly varied sequence, such as coding and filing documents in an extensive alphabetical file, simple posting to individual accounts, opening mail, opening mail through metering machines, and calculating and posting charges to departmental accounts. Little or no subject-matter knowledge is required, but the clerk needs to choose the proper procedure for each task.

General Clerk III 1333

Work requires a familiarity with the terminology of the office unit. Selects appropriate methods from a wide variety of procedures or makes simple adaptations and interpretations of a limited number of substantive guides and manuals. The clerical steps often vary in type or sequence, depending on the task. Recognized problems are referred to others.

Typical duties include a combination of the following: maintaining time and material records, taking inventory of equipment and supplies, answering questions on departmental services and functions, operating a variety of office machines, posting to various books, balancing a restricted group of accounts to controlling accounts, and assisting in preparation of budgetary requests. May oversee work of lower level clerks.

General Clerk IV 1334

Uses some subject-matter knowledge and judgment to complete assignments consisting of numerous steps that vary in nature and sequence. Selects from alternative methods and refers problems not solvable by adapting or interpreting substantive guides, manuals, or procedures.

Typical duties include: assisting in a variety of administrative matters; maintaining a wide variety of financial or other records; verifying statistical reports for accuracy and completeness; and handling and adjusting complaints. May also direct lower level clerks.

Positions above level IV are excluded. Such positions (which may include supervisory responsibility over lower level clerks) require workers to use a thorough knowledge of an office's work and routine to: 1) choose among widely varying methods and procedures to process complex transactions; and 2) select or devise steps necessary to complete assignments. Typical jobs covered by this exclusion include administrative assistants, clerical supervisors, and office managers.

Not classifiable by level 1339

Workers in positions with work characteristics as described, and within the range of defined levels, should be reported under this classification when the information needed to classify them according to the level definitions is not available.

MAINTENANCE, TOOLROOM, AND POWERPLANT OCCUPATIONS

MAINTENANCE CARPENTER 3010

Performs the carpentry duties necessary to construct and maintain in good repair building woodwork and equipment such as bins, cribs, counters, benches, partitions, doors, floors, stairs, casings, and trim made of wood. Work involves most of the following: Planning and laying out of work from blueprints, drawings, models, or verbal instructions; using a variety of carpenter's handtools, portable power tools, and standard measuring instruments; making standard shop computations relating to dimensions of work; and selecting materials necessary for the work. In general, the work of the maintenance carpenter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE ELECTRICIAN 3020

Performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generation, distribution, or utilization of electric energy. Work involves most of the following: Installing or repairing any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layouts, or other specifications; locating and diagnosing trouble in the electrical system or equipment; working standard computations relating to load requirements of wiring or electrical equipment; and using a variety of electrician's handtools and measuring and testing instruments. In general, the work of the maintenance electrician requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE PAINTER 3130

Paints and redecorates walls, woodwork, and fixtures. Work involves the following: Knowledge of surface peculiarities and types of paint required for different applications; preparing surface for painting by removing old finish or by placing putty or filler in nail holes and interstices; and applying paint with spray gun or brush. May mix colors, oils, white lead, and other paint ingredients to obtain proper color or consistency. In general, the work of the maintenance painter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE MACHINIST 3070

Produces replacement parts and new parts in making repairs of metal parts of mechanical equipment. Work involves most of the following: Interpreting written instructions and specifications; planning and laying out of work; using a variety of machinist's handtools and precision measuring instruments; setting up and operating standard machine tools; shaping of metal parts to close tolerances; making standard shop computations relating to dimensions of work, tooling, feeds, and speeds of machining; knowledge of the working properties of the common metals; selecting standard materials, parts, and equipment required for this work; and fitting and assembling parts into mechanical equipment. In general, the machinist's work normally requires a rounded training in machine-shop practice usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE MECHANIC (machinery) 3100

Repairs machinery or mechanical equipment. Work involves most of the following: Examining machines and mechanical equipment to diagnose source of trouble; dismantling or partly dismantling machines and performing repairs that mainly involve the use of handtools in scraping and fitting parts; replacing broken or defective parts with items obtained from stock; ordering the production of a replacement part by a machine shop or sending the machine to a machine shop for major repairs; preparing written specifications for major repairs or for the production of parts ordered from machine shops; reassembling machines; and making all necessary adjustments for operation. In general, the work of a machinery maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Excluded from this classification are workers whose primary duties involve setting up or adjusting machines.

MAINTENANCE PIPEFITTER 3140

Installs or repairs water, steam, gas, or other types of pipe and pipefittings. Work involves most of the following: Laying out work and measuring to locate position of pipe from drawings or other written specifications; cutting various sizes of pipe to correct lengths with chisel and hammer or oxyacetylene torch or pipe-cutting machines; threading pipe with stocks and dies; bending pipe by hand-driven or power-driven machines; assembling pipe with couplings and fastening pipe to hangers; making standard shop computations relating to pressures, flow, and size of pipe required; and making standard tests to determine whether finished pipes meet specifications. In general, the work of the maintenance pipefitter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Workers primarily engaged in installing and repairing building sanitation or heating systems are excluded.

MILLWRIGHT 3110

Installs new machines or heavy equipment, and dismantles and installs machines or heavy equipment when changes in the plant layout are required. Work involves most of the following: Planning and laying out work; interpreting blueprints or other specifications; using a variety of handtools and rigging; making standard shop computations relating to stresses, strength of materials, and centers of gravity; aligning and balancing equipment; selecting standard tools, equipment, and parts to be used; and installing and maintaining in good order power transmission equipment such as drives and speed reducers. In general, the millwright's work normally requires a rounded training and experience in the trade acquired through a formal apprenticeship or equivalent training and experience.

MOTOR VEHICLE MECHANIC 3090

Repairs, rebuilds, or overhauls major assemblies of internal combustion automobiles, buses, trucks, or tractors. Work involves most of the following: Diagnosing the source of trouble and determining the extent of repairs required; replacing worn or broken parts such as piston rings, bearings, or other engine parts; grinding and adjusting valves; rebuilding carburetors; overhauling transmissions; and repairing fuel injection, lighting, and ignition systems. In general, the work of the motor vehicle mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

This classification does not include mechanics who repair customers' vehicles or who only perform minor repair and tuneup of motor vehicles. It does, however, include fully qualified journeymen mechanics even though most of their time may be spent on minor repairs and tuneups.

GENERAL MAINTENANCE WORKER 3180

Performs general maintenance and repair of building structures and their mechanical, electrical, or sanitary systems. May also perform general maintenance and repair of the establishment's machinery. Work requires a basic practical knowledge of several maintenance trades in order to perform most of the following: Keeping in good repair building woodwork; replacing electrical switches, fixtures, and motors; occasional painting or touching up of structure or equipment; repairing or replacing plumbing fixtures; and replacing broken window panes.

Excluded are positions requiring a formal apprenticeship or equivalent training in one or more crafts. Also excluded are workers participating in such a program.

MAINTENANCE TRADES HELPER 3050

Assists one or more workers in the skilled maintenance trades by performing specific or general duties of lesser skill, such as keeping a worker supplied with materials and tools; cleaning working area, machine, and equipment; assisting journeyman by holding materials or tools; and performing other unskilled tasks as directed by journeyman. The kind of work the helper is permitted to perform varies from trade to trade: In some trades, the helper is confined to supplying, lifting, and holding materials and tools, and cleaning working areas; and in others he is permitted to perform specialized machine operations, or parts of a trade that are also performed by workers on a full-time basis.

MACHINE-TOOL OPERATOR (toolroom) 3060

Specializes in operating one or more than one type of machine tool (e.g., jig borer, grinding machine, engine lathe, milling machine) to machine metal for use in making or maintaining jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). Work typically involves: Planning and performing difficult machining operations which require complicated setups or a high degree of accuracy; setting up machine tool or tools (e.g., install cutting tools and adjust guides, stops, working tables, and other controls to handle the size of stock to be machined; determine proper feeds, speeds, tooling, and operation sequence or select those prescribed in drawings, blueprints, or layouts); using a variety of precision measuring instruments; making necessary adjustments during machining operation to achieve requisite dimensions to very close tolerances. May be required to select proper coolants and cutting and lubricating oils, to recognize when tools need dressing, and to dress tools. In general, the work of a machine-tool operator (toolroom) at the skill level called for in this classification requires extensive knowledge of machine-shop and toolroom practice usually acquired through considerable on-the-job training and experience.

For cross-industry wage study purposes, this classification does not include machine-tool operators (toolroom) employed in tool and die jobbing shops.

TOOL AND DIE MAKER 3170

Constructs and repairs jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). Work typically involves: Planning and laying out work according to models, blueprints, drawings, or other written or oral specifications; understanding the working properties of common metals and alloys; selecting appropriate materials, tools, and processes required to complete task; making necessary shop computations; setting up and operating various machine tools and related equipment; using various tool and die maker's handtools and precision measuring instruments; working to very close tolerances; heat-treating metal parts and finished tools and dies to achieve required qualities; fitting and assembling parts to prescribed tolerances and allowances. In general, the tool and die maker's work requires rounded training in machine-shop and toolroom practice usually acquired through formal apprenticeship or equivalent training and experience.

For cross-industry wage study purposes, this classification does not include tool and die makers who (1) are employed in tool and die jobbing shops or (2) produce forging dies (die sinkers).

STATIONARY ENGINEER 3030

Operates and maintains one or more systems which provide an establishment with such services as heat, air-conditioning (cool, humidify, dehumidify, filter, and circulate air), refrigeration, steam or high-temperature water, or electricity. Duties involve: Observing and interpreting readings on gauges, meters, and charts which register various aspects of the system's operation; adjusting controls to insure safe and efficient operation of the system and to meet demands for the service provided; recording in logs various aspects of the system's operation; keeping the engines, machinery, and equipment of the system in good working order. May direct and coordinate activities of other workers (not stationary engineers) in performing tasks directly related to operating and maintaining the system or systems.

The classification excludes head or chief engineers in establishments employing more than one engineer; workers required to be skilled in the repair of electronic control equipment; workers in establishments producing electricity, steam, or heated or cooled air primarily for sale; and boiler tenders.

MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS

TRUCKDRIVER

Drives a truck within a city or industrial area to transport materials, merchandise, equipment, or workers between various types of establishments such as: Manufacturing plants, freight depots, warehouses, wholesale and retail establishments, or between retail establishments and customers' houses or places of business. May also load or unload truck with or without helpers, make minor mechanical repairs, and keep truck in good working order. Routesales and over-the-road drivers are excluded.

For wage study purposes, truckdrivers are classified by type and rated capacity of truck, as follows:

Truckdriver, light truck (straight truck, under 1 1/2 tons, usually 4 wheels)	4081
Truckdriver, medium truck (straight truck, 1 1/2 to 4 tons inclusive, usually 6 wheels)	4082
Truckdriver, heavy truck (straight truck, over 4 tons, usually 10 wheels)	4083
Truckdriver, tractor-trailer	4084
Truckdrivers not classifiable by category	4089

Workers in positions with work characteristics as described should be reported under this category when the information needed to classify them according to category is not available or they are not assigned to a particular category of truck.

SHIPPER AND RECEIVER

Performs clerical and physical tasks in connection with shipping goods of the establishment in which employed and receiving incoming shipments. In performing day-to-day, routine tasks, follows established guidelines. In handling unusual nonroutine problems, receives specific guidance from supervisor or other officials. May direct and coordinate the activities of other workers engaged in handling goods to be shipped or being received.

Shippers typically are responsible for most of the following: Verifying that orders are accurately filled by comparing items and quantities of goods gathered for shipment against documents; insuring that shipments are properly packaged, identified with shipping information, and loaded into transporting vehicles; preparing and keeping records of goods shipped, e.g., manifests, bills of lading.

Receivers typically are responsible for most of the following: Verifying the correctness of incoming shipments by comparing items and quantities unloaded against bills of lading, invoices, manifests, storage receipts, or other records; checking for damaged goods; insuring that goods are appropriately identified for routing to departments within the establishment; preparing and keeping records of goods received.

For wage study purposes, workers are classified as follows:

Shipper	4160
Receiver	4260
Shipper and receiver	4360

WAREHOUSEMAN 4110

As directed, performs a variety of warehousing duties which require an understanding of the establishment's storage plan. Work involves most of the following: Verifying materials (or merchandise) against receiving documents, noting and reporting discrepancies and obvious damages; routing materials to prescribed storage locations; storing, stacking, or palletizing materials in accordance with prescribed storage methods; rearranging and taking inventory of stored materials; examining stored materials and reporting deterioration and damage; removing material from storage and preparing it for shipment. May operate hand or power trucks in performing warehousing duties.

Exclude workers whose primary duties involve shipping and receiving work (see Shipper and Receiver and Shipping Packer), order filling (see Order Filler), or operating power trucks (see Power-Truck Operator).

ORDER FILLER 4040

Fills shipping or transfer orders for finished goods from stored merchandise in accordance with specifications on sales slips, customers' orders, or other instructions. May, in addition to filling orders and indicating items filled or omitted, keep records of outgoing orders, requisition additional stock or report short supplies to supervisor, and perform other related duties.

SHIPPING PACKER 4050

Prepares finished products for shipment or storage by placing them in shipping containers, the specific operations performed being dependent upon the type, size, and number of units to be packed, the type of container employed, and method of shipment. Work requires the placing of items in shipping containers and may involve one or more of the following: Knowledge of various items of stock in order to verify content; selection of appropriate type and size of container; inserting enclosures in container; using excelsior or other material to prevent breakage or damage; closing and sealing container; and applying labels or entering identifying data on container. Packers who also make wooden boxes or crates are excluded.

MATERIAL HANDLING LABORER 4070

Performs physical tasks to transport or store materials or merchandise. Duties involve one or more of the following: Manually loading or unloading freight cars, trucks, or other transporting devices; unpacking, shelving, or placing items in proper storage locations; or transporting goods by handtruck, cart, or wheelbarrow.

Excluded from this definition are workers whose primary function involves:

a. Participating directly in the production of goods (e.g., moving items from one production station to another or placing them on or removing them from the production process);

b. Stocking merchandise for sale;

c. Counting or routing merchandise;

d. Operating a crane or heavy-duty motorized vehicle such as forklift or truck;

e. Loading and unloading ships (longshore workers); or

f. Traveling on trucks beyond the establishment's physical location to load or unload merchandise.

POWER-TRUCK OPERATOR

Operates a manually controlled gasoline- or electric-powered truck or tractor to transport goods and materials of all kinds about a warehouse, manufacturing plant, or other establishment.

For wage study purposes, workers are classified by type of power-truck, as follows:

Forklift operator 4090

Power-truck operator (other than forklift) 4190

JANITOR, PORTER, OR CLEANER 4030

Cleans and keeps in an orderly condition factory working areas and washrooms, or premises of an office, apartment house, or commercial or other establishment. Duties involve a combination of the following: Sweeping, mopping or scrubbing, and polishing floors; removing chips, trash, and other refuse; dusting equipment, furniture, or fixtures; polishing metal fixtures or trimmings; providing supplies and minor maintenance services; and cleaning lavatories, showers, and restrooms. Workers who specialize in window washing are excluded.

* U.S. G.P.O.:1991- 282-145:45488